Lectures
ON
MOLECULAR PHYSIOLOGY, PATHOLOGY, AND THERAPEUTICS,
AND THEIR
APPLICATION TO THE TREATMENT OF DISEASE.

BY
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LECTURE XI.

MORBID DEGENERATIONS OF TEXTURE.

MORBID degenerations are exactly opposed to morbid growths of texture, the ultimate elements of which may undergo chemical and structural changes which impede and ultimately destroy function. Chemically, these changes may be arranged in four groups—viz., the albuminous, the fatty, the pigmentary, and the mineral degenerations. Structurally, they are all essentially dependent on the abnormal formation and collection of histolytic molecules.

ALBUMINOUS DEGENERATION.

The albumen which exists so universally in the tissues and fluids of the body may be condensed or precipitated in various ways. The serum of the blood effused through the vessels and collected in the cellular tissue or serous cavities constitutes dropsy. It contains no fibrin, and does not, therefore, present that tendency to rapid coagulation and formation of organizable blastemata peculiar to exudations. Still the albumen held in solution is very apt to be precipitated in the molecular, celloid, fibrous, or membranous forms.

Molecular albumen.—1. Induration of the brain consists of an albuminous molecular matter deposited amongst the tubes, rendering the thinnest sections opaque, and giving to the texture a peculiar toughness. This induration is common around abscesses of that organ, and may have originated in exudation, which has been transformed into the substance described. 2. Peculiar yellow masses found in various organs, with abrupt smooth margins, variously denominated typhous or syphilitic deposits, appear to me to constitute a degeneration of pre-existing exudations, presenting a similar character. 3. Certain forms of tubercle may be said to consist of the same amorphous, finely molecular albuminous substance.

Celloid albumen.—Precipitations of albumen round extravasated blood globules may frequently be seen in the brain, spleen, and other organs, which closely resemble cell-walls. The same may be seen round pus corpuscles. Delicate diaphanous globes, also albuminous, may constantly be found floating in the fluid of exudations and of morbid growths. Another form of celloid albumen may be seen in mechanical softenings of the brain and spinal cord. The glutinous white substance of Schwann, in the nerve tubes, on being broken up, has the property of so uniting as to form globules with double outlines.

Fibroid albumen.—Exuded albuminous fluids not unfrequently undergo fibrillation, or fibrinous exudations undergo a peculiar transformation, the whole becoming white in colour, and dense to the feel. It has been described by Dr. Handfield Jones under the name of *fibroid degeneration*. We find it in the hide-bound integuments of infants, in the opaque thickenings of the arachnoid, pleura, peritoneum, and pericardium, in the chronic indurations of hollow viscera, in cirrhosis of the liver, and certain fibrous alterations of cartilage.

Membranous albumen.—From an albuminous fluid existing in considerable quantity, precipitations are very apt to occur in the form of flakes or membranes. This has been observed in the fluid of pemphigus and in certain dropsies of the serous

FIG. 85.

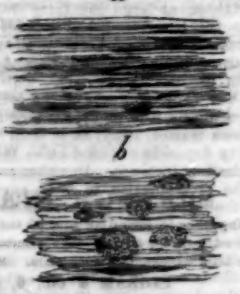


Fig. 85. Edges of albuminous lamina, in a case of hydrocele, where the skin was destroyed. a, Edges of horizontal lamina. b, The same in another place, with brownish-yellow pigment granules. (Weil.) 250 diameters.

cavities. Such membranes in the peritoneum, collecting round floating pieces of fat, have been known to occasion concretions, varying in size from a hazel-nut to that of a billiard-ball.

Waxy degeneration.—A peculiar change in the pre-existing texture of various organs, known under this appellation, sometimes called brawny or bacony when applied to the liver and spleen, appears to me to be a form of albuminous degeneration. 1st. In the liver it presents to the naked eye a pale-fawn colour, the tissue is of unusual density, and on section presents a smooth surface, with semi-transparent edges. The hepatic cells under the microscope are seen to be shrivelled, colourless, and of peculiar transparency, with the nucleus absent, or evidently disappearing. (Fig. 86.) 2nd. In the kidneys the organ presents the same general aspect; and, on minute examination, the glandular cells are similarly affected to those in the liver, and not unfrequently the Malpighian bodies have evidently undergone the same alteration. 3rd. In the spleen the same characters are presented, both to the naked eye and under the microscope, the cells of the parenchyma, as well as those in the Malpighian bodies, being compressed together, shrivelled, and presenting a similar pale, translucent appearance. 4th. I have seen the same transformation in the placenta as well as in chronic simple, cancerous, and tubercular exudations.

FIG. 86.

Fig. 86. Waxy cells of the liver.

It is said that the addition of iodine with a little sulphuric acid tinges this substance of a blue colour, like starch, and hence it has been called amyloid degeneration. But it is very rare indeed that these reagents communicate even a purplish hue to tissues affected with this degeneration; and as to a blue colour, this has never been seen. The term amyloid, therefore, in consequence of its chemical composition, is erroneously applied, especially as that term had been previously used in reference to a structural change to be noticed hereafter.

Colloid degeneration.—The collection of a glue-like substance in the areolæ of certain cancers, or in the cystic growths of the thyroid and other organs, is also probably allied to the albuminous degeneration.

FATTY DEGENERATION.

It has now been proved that under especial circumstances almost every fluid and tissue of the body may undergo the fatty degeneration. This consists in the deposition or formation of fatty molecules, which by their accumulation may so impede or alter structure that loss of function and, as a consequence, fatal diseases are produced. In this state we find it constituting the substance of the atrophied supra-renal and thymus glands in the adult; the exudation in chronic softening of the brain, and other parenchymatous organs; accumulated within cysts, the result of transformation of their contents; in the centre of colloid masses; in chronic exudations, and extravasations of blood, presenting a milky, yellow, or fawn-coloured hue; or in the blood, urine, and other fluids, giving them a chylous character.

Although, as we have said, there is no part of the animal frame which may not be subject to this lesion, we may notice more especially the fatty degeneration of cell tissues, of muscle, of the blood-vessels, and of bone.

Fatty degeneration of cells.—It was shown by Reinhardt, that there was no kind of cell formation that did not, under certain circumstances, undergo the fatty degeneration. The manner in which this is accomplished is in all cases the same. A few fatty molecules first form between the nucleus and cell-wall. These increase in number, and some of them apparently melt together to produce larger ones. This process goes on until at length the whole contents of the cell consist of fatty molecules and granules. The nucleus is now no longer visible, and in many cases wastes away, as if from pressure. Occasionally, this fatty deposition of molecules takes place within the nucleus in the first instance. In either case, the cell-wall, distended by the accumulation of fatty particles, at length gives way, and the included oil granules either separate, or for a time adhere together in granular masses. Sometimes these bodies are easily ruptured by external violence; at others they are more resistant, and the oily matter is forced through the cell-wall, and collects outside, whilst the cell itself is more or less collapsed. In this way, collections of fatty granules and granular cells take place in the ducts of all glands which are lined by epithelium; in the air vesicles of the lung and in the bronchi; in the cells of the liver, where this lesion may readily

FIG. 87.

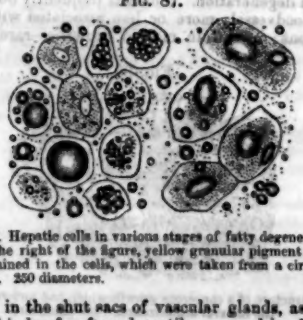


FIG. 87. Hepatic cells in various stages of fatty degeneration. On the right of the figure, yellow granular pigment is also contained in the cells, which were taken from a cirrhosed liver. 250 diameters.

be studied; in the shut sacs of vascular glands, as the spleen; in certain kinds of softened cartilages; and in all cell formations in exudation, especially those of pus and cancer.

Fatty degeneration of muscle.—There can be no doubt that the fibro-albuminous substance constituting flesh is capable of undergoing a transformation into fat. Of the exact chemical nature of that transformation we have yet to be informed; but it may not only be observed in the dead body, but may be produced artificially, by exposing muscle to a running stream of water, whereby it is changed into adipocere. In voluntary muscle, we observe that the degeneration commences with diminished distinctness of the transverse striæ, especially at the circumference of the fasciculus. As this extends inwards, minute molecules of fat occupy the position of the striæ, and at length obliterate them; gradually these coalesce, globules of various sizes are formed within the sarcolemma, and the normal structure of voluntary muscle disappears. During the early changes the fasciculus becomes soft, exhibits a tendency to crack crossways, and ultimately is so pulpy as to be capable of being easily squeezed into an amorphous mass, from which large oil-drops exude. To the naked eye, the muscular substance becomes paler, and more and more fawn-coloured, and at length

FIG. 88.

Fatty degeneration of the muscular fasciculi of the heart. 250 diameters.

yellow, whilst its normal density is greatly diminished. These changes are easily observed in the heart, in which organ they have been made the subject of special research by Ormerod, Paget, Quain, and others.

Fatty degeneration of blood-vessels.—The larger blood-vessels, especially the arteries, are very commonly the seat of a fatty degeneration, generally called atheroma. It presents the appearance of a whitish or yellowish cheesy, but sometimes indurated and brittle substance, between the coats of the vessel, often protruding on its inner surface, and consists of numerous fatty granules mingled with crystals of cholesterine (Gulliver), to which, when hard and brittle, are added calcareous amorphous salts. The smaller vessels and capillaries are frequently seen to contain fatty granules, which vary in number from two or three, or even isolated ones here and there, to patches of them. These may often be seen to originate in the nuclei of the vascular wall. Fatty degeneration of the blood-vessel itself should be carefully distinguished from fatty degeneration of the surrounding textures, or from an exudation coagulated on or existing outside its exterior. (See Figs. 67, 68.) This lesion, as leading to softening, brittleness, and rupture of the blood-tubes, must be regarded as one of the most important which occurs in the body.

Fatty degeneration of bone.—Wedl has described the cancelli of bone in syphilitic caries as being dilated and filled with fat, owing to the exudation poured into them having undergone the fatty degeneration, and in most cases of ulcerated bone a large formation of oily molecules and loose globules of oil may frequently be observed. Virchow has detected similar molecules in the lacunæ and canaliculi. The mollities ossium, or malacosteon of adults, is also a form of fatty degeneration of bones (Paget), in which the cancelli are loaded with large oil-drops, often tinted red, combined with the formation of numerous cells, varying in size from the $\frac{1}{1000}$ to the $\frac{1}{250}$ of an inch in diameter, containing a round nucleus, also varying much in size, occasionally showing various stages of division and of endogenous development. This, like so many other fatty degenerations of texture, is probably owing to an exudation from the blood-vessels, mingled with more or less extravasation of the coloured corpuscles, in which we find new cells developed, combined with fatty transformations of the albuminous and fibrinous materials. In this respect it differs from the softening of bone in rachitis, which may be regarded as arrested development of bone, with increased growth of cartilage cells (Kölliker).

PIGMENTARY DEGENERATION.

The formation of pigment in plants and animals is essentially connected with that of fat, most colours either being different kinds of tinted oil, or secreted in cells at the expense of carbonaceous products, which are readily transformed into fatty compounds. In morbid conditions, also, several of the textures are of different tints, but more especially red, yellow, brown, green, or black, from chemical alteration in the colouring-matter of blood or bile. Sometimes it is the result of peculiar secretions; at others, of the disposition of carbon.

Red pigment.—All red coloration in the human body is owing to the presence of blood, the colouring principle of which has been called *hematine*—in some animals readily crystallizable. When observed in an isolated blood corpuscle, in which it is secreted, the real colour is seen by transmitted light to be yellow, although, as occurs with a strong infusion or tincture of saffron, it looks red to the naked eye when concentrated. Virchow first described in extravasations of blood prismatic crystals, with rhomboidal bases, often approaching a needle shape, of a yellowish or deep ruby colour, which he denominated *hematoidine*. In size they vary from the $\frac{1}{1000}$ to the $\frac{1}{250}$ of an inch in their long diameter. They are transparent and strongly refractive, insoluble in alcohol, ether, dilute mineral acids, and alkalies. Concentrated mineral acid causes them to assume the shades of green, blue, rose-tint, and finally a dirty yellow.

Yellow pigment.—As the real colour of the blood is yellow, so is the liquor sanguinis in which the corpuscles are dissolved, and consequently all recent exudations of lymph, as well as most kinds of pus and tubercle. Blood, after being extravasated, is broken down and absorbed; and as the colouring-matter becomes less intense, it generally assumes a yellow coloration, as around ecchymotic spots, and old extravasations. There is, however, another source of this colour in the bile. This is a deep yellow pigment, which, when absorbed into the blood, tinges all the textures, and passes off in large quantities by the skin and kidneys. When bile, diluted with water, is treated with nitric acid, a marked series of changes in colour ensue. A little acid renders it green, a larger quantity blue, purple, violet, and, lastly, a dull red or brown yellow. These changes are sup-

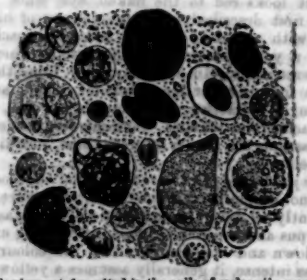
posed to be owing to the existence of three colouring matters in the bile.

Brown pigment.—During the decomposition of extravasated blood it has often been observed that the tints it sometimes presents are of a reddish, and sometimes of a bistre brown. Bile, also, when in mass, and inspissated, often assumes this colour. Different ganglia scattered through the nervous system owe their colour to the formation of brown pigment molecules which are deposited in the nerve cells. The skin, in some races, is naturally brown or swarthy; the areolæ round the nipples assume this tint during pregnancy; exposure to the sun induces this coloration of the skin, and causes freckles, and often large brown patches to appear on it in the fairest women; many warts and nævi are also of this colour. In all these cases it may be shown to arise from the deposition of a brown molecular pigment, in the deeper cells of the epidermis, and sometimes, as in warty nævi, from accumulation of dark pigment in minute sacs. The connexion between this pigment in the skin and diseases of the supra-renal capsules, notwithstanding the researches of Dr. Addison, Dr. Wilks, and others, is by no means clearly demonstrated.

Green pigment.—The cause of green pigment has not yet been determined. We have seen that nitric acid produces a grass-green colour when added to bile, and it is possible that the addition of some acid matter to hematine in certain states of combination may produce a similar result. Abscesses of the brain not unfrequently contain pus of a decided green colour, and vomited matters occasionally present the same hue. The fæces in young children are sometimes of a spinach green, by some supposed to be an altered condition of bile, by others of blood. The contents of cysts frequently contain fluid of different shades of green. In mortification and putrefaction after death the integuments frequently assume a greenish hue. Lastly, morbid growths, especially in the bones of the cranium, have been described and figured of a decided green colour (*chloroma*).

Black pigment.—Black pigment is by far the most common degeneration met with as regards colour, and is found in various situations. Thus ecchymotic extravasations generally assume a dark purple or black colour. Vomitings of blood in yellow fever and gastric cancer are frequently dark brown or black, as are the fæces after blood has been poured into them, or after taking ferruginous medicines (*melæna*); certain softenings of the stomach itself, of the intestinal glands, and of the entire mucous membrane in cases of dysentery; the contents of ovarian cysts and other encysted tumours; intestinal and ovarian cicatrices; the sordes on the teeth and gums in cases of fever; and mortified or dead parts. When morbid growths are black they have received the name of *melanoma*, and the black coloration of the collier's lung and bronchial glands has been called *false melanosis* or *black phthisis*. Nothing is more common than to see chronic tubercle surrounded by black pigmentary deposit. Black pigment may exist in the form of minute granules or irregular masses scattered throughout a texture. Sometimes the former are found within cells which vary in shape. They may be round, flattened, many-sided, or have irregular prolongations. This occurs in the choroid membrane of the eye; in the skin of men and animals during health; in the melanotic growths so common in grey horses, in the epithelial cells of the

FIG. 89.



Black pigment deposited in the cells of melanotic cancer. 250 diameters.

collier's lung, and in certain forms of cancer. In all these cases the nucleus is sometimes clear and colourless, at other times obscured by the black pigment. Black pigment may also occur in the crystalline form, associated with hematoidine, in old sanguineous extravasations. These have been called *melanine*.

It may be easily shown that the black pigment granules, cells, and crystals found in morbid products, although they may closely resemble each other to the naked eye, and even under the microscope, are of different chemical compositions. Thus one kind lose their colour on the addition of nitro-muriatic acid or chlorine water, whilst another not only resist these agents, but even the action of the blowpipe. It follows that the latter consist of carbon, while the former are a peculiar secretion formed within cells or a transformation of the colouring matter of the blood.

Blue, purple, and other pigments.—Blue pigment has been described as occasionally occurring in urine, and from the researches of Carter appear to be more common than is generally supposed. The shades of purple and other intermediate tints may also sometimes be present, and are evidently owing to greater or less intensity or mixture of the different colours formerly described.

MINERAL DEGENERATION.

Mineral matter may be deposited throughout a tissue so as to impede or destroy its function. In this case it is usually at first dissolved in fluid, and infiltrated more or less through the texture, and then precipitated. In this way we separate mineral degenerations from concretions, which are accidental collections in hollow viscera, although undoubtedly they insensibly pass into one another. There is scarcely perhaps any tissue, whether elementary or compound, that may not undergo the mineral degeneration. But it is frequently observed in the coats of bloodvessels more or less associated with atheroma; in exudations; in certain morbid growths—rarely in nervous texture.

FIG. 90.

Structure of a cancerous growth which had undergone the mineral degeneration. 250 diameters.

Concretions are non-organized and non-vascular productions, formed by the mechanical aggregation of various kinds of matter, generally in the ducts or cavities of the hollow viscera. It has already been pointed out that, although they pass gradually into the class of mineral degenerations, several of which closely resemble concretions, still they are distinguished from them by their never having been organized, or formed out of an organic structure. They possess a remarkable disposition, however, to collect round a central nucleus, which may be organic or non-organic, and often present as the result of pure accident. Hence they generally exhibit a tendency to assume the globular or oval shape.

Concretions may be composed of superimposed layers of albumen, as in certain balls found loose in the cavity of the abdomen; of fat, as in biliary calculi; of pigment, as in carbonaceous solid masses occasionally seen in the lungs of miners; and of mineral matter, as in salivary, renal, vesical, and prostatic calculi. Occasionally concretions are formed of hair or the caryopsis of the oat, as in intestinal concretions. They may contain true starch, or consist of rounded mineral masses closely resembling starch, the true amyloid degeneration (see Figs. 91 to 94); which must be carefully separated from the waxy degeneration, to which the term amyloid has also been applied by some German pathologists. For more minute details on these degenerations and concretions, I must refer you to the second section of my work on the Principles and Practice of Medicine.

What I am here anxious to impress upon you is that all these forms of the retrograde metamorphosis of the tissues are brought about by the deposition and aggregation of molecules, and that they have no necessary connexion with the production of cells or any other elementary kind of tissue. The whole of these important lesions are *molecular* lesions, the exact mode of production of which will doubtless be more perfectly known as organic chemistry unfolds to us the exact composition and relations of the histolytic transformations in the economy. Morbid degenerations may be regarded as not only destructive, but

occasionally of a curative tendency; as when, for example, they convert tubercle or a growing tumour—fibrous or cancerous—into an earthy concretion. Thus the most degraded forms of textural disease may be made conducive to the health of the economy, in the same manner as by the molecular law of organization it has been shown that masses of disintegrative or destructive molecules of one period may constitute the formative molecules of another.

FIG. 91. FIG. 92. FIG. 93.

a b c d e FIG. 94.

Structure of a tumour of the lacrimal gland containing numerous amyloid bodies. Fig. 91. Amyloid bodies embedded in a seemingly amorphous matter. Fig. 92. The same, after dilution with water, now seen to be invested with a fibrous sheath, and surrounded by fusiform cells and naked nuclei. Fig. 93. The same after the addition of acetic acid. Fig. 94. The same, after the addition of nitric acid. *a*, One of these bodies with a thick investing capsule. *b*, *c*, and *d*, Others showing the various ways in which they crack on pressure. *e*, Cylindrical form produced by rolling them between glasses. 250 diameters.

ON THE TREATMENT OF PHTHISIS BY THE HOT-AIR BATH.

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(*Concluded from p. 583.*)

A. W——, aged seventeen years, a wood-engraver, became my patient in October, 1860. His sister, who had been a patient of mine, died of phthisis the previous month, and he lost his mother also from the same affection. He then stated that his health had been good until recently, when he found that he was losing flesh and strength, and had a slight cough. The treatment consisted of cod-liver oil, tonics, and sedatives, under which he soon improved, and ceased to consult me. In June, 1861, he again consulted me, and remained under treatment until he went into the country on the 17th of August, where he stayed until October 10th, since which time I have seen him at intervals. He improved at first under the same treatment, but he has lately grown weaker and less capable of exertion. Slight hæmoptysis occurred once.

Nov. 20th, 1861, (thirteen months from commencement of illness.)—Much thinner than when in health; complexion of such a remarkably dusky hue as to lead to suspicion that the supra-renal capsules are diseased; feels weak and languid, especially in the afternoon; slight night-sweats; very easily put out of breath; cough very troublesome, and attended by mucous expectoration.

Physical signs.—Marked dulness on percussion, and moist crackling over the space bounded above by the left clavicle, and at a distance of four inches below by a line drawn parallel to the clavicle. Ordered the hot-air bath twice a week.

Jan. 24th, 1862.—In nine weeks and three days has taken eighteen baths—two per week. Stayed in the hot chamber about an hour, and was shampooed on every occasion but one. Has latterly taken the cold douche. Continued taking cod-liver oil and sulphate of quinine, as he had done for a long time previously; but the cough medicine was omitted, as he found it unnecessary; expectoration also much less. The attacks of debility in the afternoon have quite left him; he sleeps well; no night-perspirations since first bath. The appetite is greatly improved, and, what is most remarkable, the dusky hue of his complexion has almost entirely disappeared.

A fortnight ago he had a severe attack of pain passing from a spot beneath the left clavicle to the back; this lasted three days. A small blister and poultices of hot bran were employed to remove it.

Physical signs.—Dulness on percussion as before; no crepitant sound whatever on deep inspiration or coughing, but a peculiar low creaking sound; no cavernous breathing or other signs of cavity.

Feb. 12th.—Shown to seven members of the Society for the Study of Diseases of the Chest, at Dr. Webb's. With one exception, all regarded the results of the bath treatment favourably. The gentleman in question ascribed patient's improvement to his having worked at engraving two hours less since beginning baths; he works at present seven hours daily instead of nine. Chest examined by the members, and absence of crepitation admitted by all.

21st.—General symptoms good. Omit all treatment, except baths.

March 24th.—Since last entry has had baths three times weekly, except one week, when he had them twice only. Was weighed on 9th ult., and found he had gained four pounds and a half in a month. Cough rather better; fine crepitant sounds under left clavicle.

April 16th.—Twenty-first week of bath treatment; has had about fifty baths in all. Is now in all respects going on well. Sleeps well, and has no night-sweats; appetite good; bowels regular; cough almost gone. Has worked ten hours a day for last two months, except on days when he takes the bath.

May 18th.—Doing well. Weighed on 15th ult. 126 pounds, without any clothes, and before taking bath. (This mode of weighing is to be understood whenever his weight is afterwards mentioned.) Sent to Dr. George Johnson, who was kind enough to examine him and make the following note:—"Dulness at left apex; deficient respiration; large crepitation; bronchophony; face pale; night-sweats have ceased. Has been taking Turkish baths three times a week; soon began to improve; has gained flesh and strength."

July 16th.—Going on well. Physical signs: large crepitation under left clavicle. Bath closed for the present.

Sept. 10th.—States that he continued very well without any baths until about a month ago, when he got pain under left clavicle, night-sweats, and increase of cough. Took three baths, one per week, at an establishment in the Euston road, with direct benefit. With the exception of about ten days, when so unwell, as stated above, and on the days when he takes the baths, has worked full time for several months. Ordered medicine for cough, as it is now sometimes troublesome. Large crepitation as before.

26th.—Taken only two baths since last date. Note by Dr. Johnson: "Dulness over left upper lobe; gurgling under cla-

vicle; crepitation large, as low as mamma. Expectoration in morning."

Oct. 29th.—Has lately been occupied two hours in drawing, in addition to ten hours at engraving, daily, except on the bath days. Cough trifling, with a little mucous expectoration in the morning. Takes bath twice a week, with the cold plunge after it. Weight on Oct. 1st, 121¼ pounds. Physical signs as in Dr. Johnson's report. To omit drawing lessons.

Dec. 31st.—Increased two pounds in weight between Oct. 1st and Nov. 21st, and a pound and a half between Nov. 21st and Dec. 30th. Weighed yesterday 125 pounds. Cavity seems drier.

March 11th, 1863.—Is looking well, and a week ago weighed 126 pounds. Cough has given little trouble; no night-sweats; appetite very good; works on an average nine hours a day; has taken the baths and cold plunge twice and sometimes three times a week.

May 14th.—Says his cough is better than since commencing baths; can go up hill much better than he could some months ago; works and takes baths as usual. He has long been in the habit of walking to and from the bath, a distance of about six miles; but his weight has not been sustained lately: weighs 119 pounds.

30th.—Not so well as usual for some days; cough troublesome at night; working seven hours a day. Physical signs: Right side as before. Left: some dulness on percussion under the clavicle, and slight crepitation on coughing.

June 22nd.—Hæmoptysis in small amount came on early on the 19th ult., and occurred throughout the day when he coughed; sputa more or less tinged since. Weighed June 19th 116¼ pounds. Ordered a grain of quinine three times a day, and to continue baths.

Sept. 15th.—Has lost weight considerably; weighed on the 11th ult. 108 pounds. Has not worked at his trade for some time. Physical signs as before. Has left off the quinine. Ordered for the cough a mixture of ipecacuanha and morphia.

Nov. 19th.—Like J. C——, the bath is a source of enjoyment to him; his fondness of it and faith in it are indeed remarkable. On Sept. 26th he took, without my knowledge, a situation as shampooer, from a conviction that his being constantly in the bath would prove still more beneficial to him. Since then he has been from eight to ten hours daily employed actively in his duties. He assures me that he seldom coughs when in the bath, and less at night than he did previously; that his "chest feels quite easy," and that his appetite and strength are improved, but that he feels a good deal fatigued at night from the labour. He takes the cold douche daily, and very often more than once. What is most remarkable is that his weight has increased six pounds since he has been constantly in the bath. Physical signs show that the cavity in the left lung has become drier; no moist sounds can be heard except on coughing, and the same is true of the crepitation at the right apex.

Remarks.—This patient has been subjected to the bath treatment exactly two years. I have found that when he does not drink, he loses by perspiration 2 pounds in weight in the course of an ordinary bath. From the commencement up to September 26th he had taken not less than 170 baths. At the rate mentioned, that would give a total loss of 340 pounds from this source. Add to this 4 pounds a day loss (a moderate estimate) during 46 days that he has been constantly in the bath, making 184 pounds, and the total loss of forced perspiration from both sources will be 524 pounds. This is more than four times the highest observed weight of his body—126 pounds. Some idea may be gained from these figures of the activity of the treatment.* As to the result, it is, of course, admitted that the disease, which from the physical signs seemed arrested at first, afterwards advanced. On the other hand, when the baths were omitted for several weeks, the bad symptoms returned, and were to all appearance removed by resuming them. Again, when his general health and weight had fallen off so considerably, a prolonged and daily exposure to the bath was followed by a great improvement in both, and there is reason to hope it will be long maintained.

In testing a new remedy, it is desirable that the diseases against which it is employed should be well developed. If the action of the remedy is favourable, it may reasonably be supposed that it would be still more efficacious in the earlier stages of the same disease.

The following is a case of phthisis in its first stage treated by the bath:—

* It may be laid down, I think, as a general rule that large evacuations by sweating may be employed more freely, and with less disadvantage to patients, than by any other secretion.—Todd's Clinical Lectures, 1860, p. 409.

Feb. 3rd, 1862.—H. W——, aged twenty-seven, is an omnibus conductor, but was a butcher until twelve months ago. Is married, and of steady habits. His parents are living. A brother of his father died of phthisis. He has been out of health about thirteen months; has lost flesh and strength; had some cough with expectoration; and has had slight hæmoptysis at intervals for some months, marked dyspnœa, and slight night-sweats. Says he has at present no cough or expectoration, and that the dyspnœa is less troublesome. Physical signs: Well-marked dulness on percussion in the right infra-clavicular region; deficiency of expansion, and roughness of respiration.

He has taken cod-liver oil and quinine for about six months with advantage; and in December last he took, by my advice, three Turkish baths, which seemed beneficial. Circumstances prevented his resuming them until the 15th January, since which time he has had seven baths.

May 3rd.—Every bad symptom has disappeared. He has taken no medicine for several weeks, but has had two baths a week, with some interruptions, since the last note was made. Except when he takes baths he works fourteen hours and a half daily.

Nov. 13th, 1863.—Has taken the baths ever since at intervals of about a fortnight. He is constantly employed at his business, and is free from pulmonary symptoms. On carefully examining his chest, I could not detect any physical signs, except a slight roughness of respiration at the right apex.

After much careful and prolonged observation of these cases, the evidence that the bath treatment proved beneficial is to myself conclusive. I have been anxious that every source of error should be eliminated as far as possible, and, at the risk of being tedious, any circumstances that seemed to have relation to the improved health of the patients, such as going into the country, curtailment of hours of work, &c., have been carefully noted. I am well aware that the statements of patients who are subjected to any new treatment are not to be hastily accepted. There is a tendency on their parts to believe that they are deriving benefit, and if the mind of the physician is itself biased in favour of a remedy, the conditions for erroneous conclusions are complete. But even if I had not steadily held this danger in view, the length of time during which the patients were under observation must have corrected fallacies. As soon as it was plain that the bath treatment could be safely substituted for internal remedies, all medicines were omitted in order to give the bath a more perfect trial.

It will be convenient to consider the effects of treatment in the foregoing cases relative to the prominent symptoms of phthisis under separate heads.

Cough.—The patients who suffered from this asserted that the bath had a decidedly beneficial effect.

Dyspnœa.—There was marked improvement of this symptom in all the cases. J. C—— especially complained of a long-standing dyspnœa when he commenced the baths, and he attributed his power of increased exertion as much to "better breath" as to greater strength. The diminution of dyspnœa is very suggestive.

Hæmoptysis.—It might be supposed that spitting of blood would be induced, where the predisposition to it existed, by the stimulating effects of a high degree of heat. On reflection this seemed to me improbable, as, notwithstanding acceleration of pulse, the stimulating action is mainly exerted on the surface of the body. The superficial circulation being thereby promoted, blood is diverted from the internal organs. The result proved that any apprehension was unnecessary. J. C——, who suffered so much from hæmoptysis, never had the least return of it while using the bath, and H. W——, who had it in a milder degree, continued to take the bath during its occurrence, not only without injury, but with apparent advantage.

Night-perspirations.—The direct action of the bath has been more strongly shown in removing night-sweats than in any other symptom. As already stated, this was expected on rational grounds. In several other cases I have recommended the hot-air bath for this distressing symptom. A patient who had been drenched by night-perspirations told me recently, that after having taken a bath which I advised for him he had no return of them, and several days had then elapsed.

Debility and loss of weight.—A strong impression prevails that the bath weakens the body; and it is not uncommonly asserted by healthy people, whose experience is confined to a single trial, that they did not recover from its effects for several days. One of the following alternatives must therefore be accepted: a mistake must be made, from prejudice or other causes, by those who in health declare the bath to be weaken-

ing; or else the Turkish bath is peculiarly adapted for the consumptive. As debility is a leading symptom in phthisis, patients suffering from the disease would be much more sensitive of anything having a weakening tendency than those in health could possibly be. Now, not only in the cases detailed, but in several other instances which came under my notice, the bath was from the first pronounced by the patients to be comforting and sustaining.* As far as all outward appearance was concerned, that was really the case. To myself it is plain that, if not beneficial, positively bad effects must soon have been discovered. It is impossible to suppose that patients in whom vitality was so much impaired could endure the abstraction of from two to four pounds† of sweat twice or three times each week, unless these apparent losses were in reality a gain; that gain was evidenced by increased strength and wright of body, and improved general health. The remarkable increase of weight in the case of H. W—— may be compared with the happiest results of the same kind from taking cod-liver oil.

One remarkable change of opinion has resulted from the introduction of the Turkish bath. Not five years ago it was generally supposed that to pass while in a state of profuse perspiration into water the temperature of the air in winter, must be injurious, or even highly dangerous. The dread of the contact of cold water to the heated skin was sometimes carried to a ludicrous extent. I well remember, when a schoolboy, having been taken to bathe with other boys, and, if heated by exercise, being compelled to wait in a state of semi-nudity until the point of regulation coolness was attained before entering the water. This refrigeration was, of course, the best possible foundation for bad results from bathing. It remained, however, for the Eastern bath to prove that the most profuse perspiration may be suddenly checked, not only without risk, but with positive advantage.

Now, it seemed to me that since my phthisical patients endured the influence of heat as well, if not better, than the healthy, they would equally resist any bad consequences from cold. At first I took the precaution of being present, so as to watch the result of the new experiment. That result exceeded my most sanguine expectations. The patients declared the immediate effects to be agreeable, and no subsequent catarrhal or inflammatory affection could ever be attributed to the practice. Not only was this the case, but they became much less liable to catch cold than previously. This is a very encouraging effect of the bath; for, as is well known, intercurrent attacks of bronchitis and pleuro-pneumonia from changes of weather are common complications of phthisis, and too often precipitate the fatal event. Nothing is more important for the phthisical patient than that he should be as much in the open air as possible. His hope lies in living as hardy a life as his condition admits of. In selection of climate for the invalid, temperature has been far too much regarded. A dry, bracing, winter climate is to be preferred to one which is relaxing. The absence of rain and harsh winds is mainly to be considered. According to my experience, then, the hot-air bath and cold plunge in a great measure supply the deficiencies of climate by rendering patients more tolerant of our own changeable seasons.

The remarkable modifications which the physical signs underwent in two of the cases require some comment. The well-proved disappearance of crepitation in the case of J. C—— was, to say the least, a matter of the rarest occurrence; and the state of the lung under post-mortem examination went to show that it must have undergone a favourable change. In the case of H. W——, crepitation disappeared and returned, as if the vital power, aided by treatment, had gained an unsustained mastery over the disease.

I admit that the number of cases is insufficient to warrant the inference that the bath treatment arrests the deposition of tubercle, or causes tubercle already deposited to pass from an active to a passive and less injurious condition. Its good effects are, of course, to be looked for with most confidence in the first stage of phthisis, before breaking up of the lung-structure has occurred; and the case of H. W—— is highly encouraging. There is enough to make us hopeful of further success in future trials of a remedy which has the great advantage of being agreeable to the sensations, and refreshing to the mind as well as to the body of the patient. In a disease which condemns so many to prolonged suffering and death, and in which we have been powerless to save, a treatment cannot fail to be welcome which as an agent of cure promises so well, and which has been at least proved greatly to alleviate suffering.

If it, unfortunately, fell to my lot to be affected by phthisis, I should give the hot-air bath the fullest trial.

Old Burlington-street, 1863.

* It is admitted that in exceptional cases the bath, when taken for the first time, or else at rare intervals, causes temporary debility, drowsiness, or headache; but these effects are soon dispelled by repetition. Sea-bathing, as is well known, frequently induces the same results in those unaccustomed to it.

† As proved by accurate weighing before and after the bath.

SURAT COTTON, AS IT BODILY AFFECTS OPERATIVES IN COTTON MILLS.

BY JESSE LEACH, ESQ., F.R.C.S.,
A CERTIFYING SURGEON UNDER THE FACTORIES ACT.

WHEN viewing a sunbeam in the comparatively still atmosphere of a room, the air is seen filled with dust and short textile fibres. Placed in the same situation while the room floor is being swept, the sunbeam appears completely glutted with larger quantities of the same floating materials, causing an oppression of the chest and disposition to sneeze. What is manifestly revealed to us through the medium of a sunbeam in a private room more forcibly applies to the rooms of a cotton mill, where the short fibres and dirt of the staple material are effectually separated by the teeth of machinery revolving at a rapid speed.

It is necessary to say a few words on the cotton staple to correctly estimate the amount of dust in different samples of cotton. Whatever name it bears, much loss is sustained during the processes of manufacture: the American the least; the East Indian or Surat the most. Twenty-five per cent. is an average loss during the manufacture of Surat. The greater amount of loss sustained the more damaging to the constitutions of the operatives employed. The higher the rooms of a mill and the better their ventilation, the more harmless to the health of the workers; the lower the rooms of a mill and the more imperfect their ventilation, the greater the amount and extent of bodily sufferings of the mill operatives. The following remarks more particularly apply to operatives working in low, narrow, ill-ventilated rooms, where Surat cotton is used.

The first process the raw cotton undergoes is the mixing of one staple with another. Much dirt and dust is disengaged in this operation. The respiration is affected from the dust irritating the respiratory passages of the mixers, and coughing and sneezing are the frequent consequences, which disengage from the bronchial membrane a quantity of slaty-coloured expectoration, which, when placed under the microscope, is seen to consist of very fine short fibres of cotton in air-bubbles and mucus. The sneezing is occasioned by the same material irritating the olfactory nerves during nasal breathing. The arms and hands of mixers are not unfrequently affected with a cutaneous rash, much resembling nettle rash. This may partly arise from fine sand and short fibres of cotton destroying the epidermis, and irritating by their presence the true skin. Their complexion is pale and sickly. After passing from the mixers, the cotton passes through the hands of the willowers and scutchers. When ventilation is not assisted by ventilating chimneys of tin or wood, which take off more effectually the dense atmosphere with which these rooms are charged, the willowers and scutchers suffer in the same manner as the cotton mixers. From the immense velocity of the machines used, the revolutions being 1500 per minute, the quantity of short fibres of cotton set afloat in these rooms is very great. It would be difficult to recognise a man at twelve yards' distance, from the density of floating fibres, modified, of course, very much by a wet or dry day. The strippers, grinders, and card-room hands are engaged in the next process of cotton manufacture. They mostly suffer from a spasmodic cough, sore-throat, expectoration of blood, pneumonia, and confirmed asthma, with oppression of the chest. Various expedients are resorted to to liberate the small cotton fibres by expectoration from the pulmonary air-cells: tobacco-chewing, the use of gin, and smoking out of the mill are very commonly habitual. The teetotalers use tea and coffee in lieu of these for the same purpose. A carder seldom lives in a card-room beyond forty years of age; many have to give up working much younger. Forty-five to fifty years are their average ages. The next room the cotton comes to is the drawing and roving room. Drawers and rovers suffer very little from the small floating cotton fibre. The tonsils are sometimes enlarged, and the pharynx and larynx much injected. They suffer so little inconvenience from these conditions that an ocular demonstration is necessary to convince

oneself of their presence. There is comparatively much less floating short cotton fibres in these and the next rooms. The mule and throstle rooms are the next, where cotton assumes the cotton-thread. Their temperature is much higher, ranging from 75° to 90° Fahr. The light is freely admitted through numerous lofty windows. A high temperature and much light are requisite for the spinning of the cotton-thread. The hands in these rooms look pale and sickly; but are lively, cheerful, and active. They suffer much from facial tic and toothache, slight colds, and sore-throat during cold and damp weather, probably arising from their sudden transition from the heated atmosphere in which they work to a raw cold one outside the mill on their way to and from their meals. The next class of workers are the packers occupied in the warehouses. They are generally very healthy, active, and much better looking. These rooms are of a moderate temperature, and very well ventilated, which account for the improved appearance and general health of the men employed therein.

I have now passed through the general affections of operatives engaged in the various processes necessary to produce the cotton-thread from Surat cotton, and shown, as I trust, plainly that these affections arise in a great measure from the circumstance that Surat cotton has a much shorter fibre than any other kind of cotton; that its manufacture involves on an average twenty-five per cent. of loss to the spinners; that the teeth of the machines through which it has to be passed are of necessity set closer for the better working of it; and that the health of the operatives employed suffers much more, from its short fibres irritating the epithelial mucous surfaces of the air-passages during inspiration, whether nasal or vocal; and that the only remedy is more effectual ventilation in the mixing, scutching, carding, and drawing rooms. Beyond these rooms I have not observed a greater amount of suffering than from working any other class of cotton. Lastly, whatever principle of ventilation be adopted, the lightness and shortness of the fibre of Surat cotton are so remarkable that a much greater loss than twenty-five per cent. would be observable if increased ventilation be much applied; but this loss would be amply compensated for by a better quality of cotton thread, bearing an increased marketable value. Many wealthy manufacturers, compelled to use Surat cotton since the cotton famine, have applied increased ventilation to free the mixing and scutching rooms from the additional dust attending its use, and have at considerable expense brought into use powerful fans, more elevated rooms, and other appliances; and in every instance the factory operatives enjoy comparative impunity from what remains of the floating dust. The use of better gins would free the raw cotton of Surat from much of its present dirt, and our East Indian authorities possess the power of enforcing them, which would enhance the value of the cotton, and confer an inestimable boon on the Lancashire hive of wealth and industry.

Heywood, Lancashire, Nov. 1863.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum, et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. BARTHOLOMEW'S HOSPITAL.

REMARKABLE CASE OF DISEASE OF THE KNEE-JOINT, WITH THE FORMATION OF A MEMBRANOUS CAVITY IN THE LOWER END OF THE FEMUR; AMPUTATION OF THE LEG; MALADY FOUND TO BE MYELOID; RECOVERY.

(Under the care of Mr. LAWRENCE.)

THE difficulty of diagnosis in disease of the knee-joint is well exemplified in the following example, wherein a diversity of opinion prevailed amongst the surgeons at St. Bartholomew's Hospital as to its real nature, the view of the case taken by each gentleman not turning out correct when amputation permitted of its inspection after opening the joint. Even then it was at first believed by Mr. Lawrence to be malignant; but the microscope subsequently revealed its true character of myeloid disease. Not the slightest discredit is attachable to a single surgeon who formed his opinion upon this case; for, curiously enough, the articulation itself—that is, the true joint with the surfaces of the cartilage, was unimpaired; but the disease lay outside of the cartilages, between them, as it were, and the osseous surface of the femur. The lower part of this bone posteriorly was converted into a sort of sac, which at first sight strongly simulated medullary disease in an isolated form.

The importance of such a case will be admitted when we state that a feeling of regret for the poor patient seemed to pervade the numerous spectators in the operating theatre when Mr. Lawrence announced his opinion that the disease must be malignant. The serious nature of the prognosis is now exchanged for one of a more hopeful kind, and the recovery which has ensued will, it is hoped, become a permanent one. Such a case as the following shows the difficulties to be met with occasionally in affections of the knee, and how they will tax the sagacity of the most experienced to rightly interpret what are at first but obscure and doubtful symptoms.

We have condensed the account of the case from copious and careful notes taken by Mr. J. B. Blanchet, dresser to Mr. Lawrence.

Mary H——, aged twenty-five, married, and the mother of one child, was admitted into President ward on the 8th of October last. She is a healthy-looking woman, and has always enjoyed good health. Twelve months ago (five months before the birth of her child) the left knee became swollen and painful, and the articulation was gradually impaired. This was not the result of any injury. The joint then became stiff, it gradually enlarged, and the limb was useless for progression. On admission, the joint was found uniformly enlarged and swollen, the swelling being, perhaps, greater at the inner side. When at rest, and the limb placed upon a pillow, she feels comfortable; but if it is moved great pain is induced. It is slightly bent, and cannot be straightened. There is a tender spot at the inner side of the patella; there is also indistinct fluctuation there, and the presence of fluid is suspected. The affected knee measures two inches and a half more than the sound one. The joint was completely bronzed from iodine being applied externally. The catamenia are regular, and she sleeps soundly at night. She was ordered rest, to have liberal diet with porter, and the knee to be wrapped up in cotton-wool. Pain now commenced in the joint, with some heat and throbbing, for which leeches and blisters were ordered, and morphine draughts at night. The swelling, however, increased.

Oct. 19th.—The swelling seems to be confined to the joint, and does not extend above or below it; the patella appears to be lifted out of its situation. It was examined by several of the surgeons, one of whom said there was fluid in the articulation, and that amputation would be ultimately required; but he suggested non-interference at present, and observed that at a later period the fluid, which would probably present near the surface, could be evacuated. This opinion was concurred in by another. A third considered it to be chronic degeneration of the synovial membrane, and that the cartilages were unaffected; he did not think there was much fluid either internal or external to the joint. Mr. Lawrence's belief was that it was disease of the synovial membrane, with fluid, probably pus, outside the joint.

The pain and enlargement of the joint gradually increased, and at a consultation held on the 24th, Mr. Lawrence, Mr. Skey, Mr. Coote, and Mr. Savory all agreed that there was fluid inside the joint, but were equally divided as to the propriety of evacuating it. On the 31st another consultation was held, at which were present (besides the above-named gentlemen) Messrs. Arnott, Paget, and Callender. The limb was attentively examined, and the general conclusion arrived at was that pulpy degeneration of the synovial membrane (Brodie's disease) existed, with a small quantity of fluid, probably pus, in the joint.

Nov. 7th.—The patient was at first unwilling to have the limb amputated, but afterwards consented to any measure that might be deemed prudent. Chloroform was given in the operating theatre, and Mr. Lawrence made an incision about an inch deep at the inner side of the patella, a small quantity of serum tinged with blood escaping. A deeper plunge of the knife was followed by a gush of serum and blood. Amputation of the limb at the lower third of the thigh, by the circular

method, was then performed, and the patient afterwards carried to her bed.

On opening the joint, the articulation was seen to be apparently quite healthy, the white glistening cartilage being very conspicuous. A cavity existed in the femur behind the patella, with nothing but the thickness of the articular cartilages intervening. The diseased mass constituting this cavity seemed to have dissected away the base of the articulating surfaces of the femur, which could be readily detached with a pair of forceps. A section of the diseased portion, the size probably of a large orange, presented an appearance which Mr. Lawrence called an hæmorrhagic example of fungus hæmatodes, from the effusion of dark masses of blood. It certainly had a most malignant aspect; but on subsequent microscopic examination by Mr. Savory, the characteristic cells of myeloid disease were found, which at once divested the case of any serious aspect in relation to the prognosis.

The progress of the case, as given in Mr. Blanchet's notes from day to day, has been most satisfactory. The stump has nearly healed, and the patient's general health and spirits are quite good; indeed she may be pronounced convalescent.

UNIVERSITY COLLEGE HOSPITAL.

CLINICAL REMARKS ON FOUR CASES OF STONE IN THE BLADDER, ALL SUCCESSFULLY OPERATED UPON, TWO BY LITHOTOMY AND TWO BY LITHOTRITY.

(Under the care of Mr. HENRY THOMPSON.)

For the notes of the following cases we are indebted to Mr. Harding, Mr. Thompson's dresser:—

P. B——, aged sixty-one, for about ten years had passed all his urine by catheter, having entirely lost the power of micturition after several attacks of inflammation of the bladder. In July, 1860, he was admitted into the hospital, under Mr. Thompson's care, with a large phosphatic stone, which was successfully removed in about six sittings; and he left, well, before the end of the month. He remained in his previous condition of health, local and general, with no symptoms of stone, for two years; but the original condition of the bladder persisting, he appears about the end of this time to have commenced again to form phosphatic stone. In the course of a third year the symptoms were aggravated, and he was readmitted under Mr. Thompson's care in September last. He was then much emaciated, and was compelled to pass the catheter almost every half hour both night and day. His urine was muco-purulent, and also highly albuminous; and he voided large quantities of blood frequently.

On Sept. 18th, Mr. Thompson seized a phosphatic stone and crushed it. No chloroform was necessary; no preliminary injection was made: the lithotrite was simply introduced, the stone crushed two or three times, and the instrument removed.

21st.—Patient much relieved by the operation. To-day the second sitting took place, conducted as before.

After this, three or four sittings succeeded at different intervals; and owing to his weak state, but little was done on each occasion. By the 1st of October the symptoms had considerably diminished. On the 9th, no fragment having been detected after two or three examinations, the urine being nearly clear and held for four or five hours, and no pain existing, he was discharged cured. His general health was also greatly improved.

T. P——, aged fifty-nine, a pensioner. During the last year and a half he has passed by urethra several uric-acid calculi of rather large size, with relief from the usual symptoms of stone in the bladder. For the last three or four months preceding admission he had continuous and severe pain, with frequency in voiding urine, and no calculi were passed.

He was admitted under the care of Mr. Thompson, who, on sounding him, found a calculus of medium size.

Sept. 16th.—The first crushing performed to-day, without the administration of chloroform or any preliminary injection; the stone being easily crushed. The patient had held his urine for about three-quarters of an hour. Much débris was passed soon after.

Another sitting, similar to the preceding, followed on the 18th; a third on the 21st; and a fourth subsequently, at a longer interval. On Oct. 7th the last small fragment was found. All symptoms ceased, and after two careful explorations he was discharged in the middle of the month.

No rigors, bleeding, or other symptoms resulted in either case; and no injections were used to remove débris, all passing readily during micturition.

Nov. 27th.—He called at the hospital to report himself perfectly well. Not a sign of irritation in the bladder or urethra remains.

D. D——, aged forty-two. He has had symptoms of stone for two or three years, and of late they have been very severe. The man was sent up from the country to be admitted under the care of Mr. Thompson, who, on sounding him, found a uric acid stone. It was caught and measured by the lithotrite two or three times during the sounding, and proved to be of rather large size. Lithotomy was, therefore, determined on.

Oct. 21st.—The staff being introduced, Mr. Thompson performed the median operation in the following manner:—Instead of transfixing, he cut down with a common scalpel towards the staff, dividing freely all the tissues lying in the line of incision, while the left index-finger was maintained in the rectum to determine the approach of the knife to the bowel. A long straight bistoury, with the back upwards, was then placed in the groove of the staff, and the final incision of the membranous and prostatic urethra made with it. The left index-finger being now placed in the wound, and the staff withdrawn, the forceps was introduced, and, after careful and gradual manipulation, an oval stone was extracted, which weighed an ounce and a drachm. There was scarcely any bleeding, and a tube was tied in.

22nd.—Patient comfortable; no opiate has been required; tube removed.

23rd and 24th.—Going on well; has had a little meat for dinner both days, as he felt disposed for it.

25th.—Some urine passes by the penis.

31st.—He is fast gaining strength; eats and drinks heartily; urine passes equally by the penis and by the wound.

Nov. 6th.—Almost all the urine passes by the natural channel. He walks about the ward.

14th.—Discharged cured.

W. H——, aged sixty-one, a gardener, was sent from the country to be admitted under the care of Mr. Thompson on Oct. 24th, 1863. He complained of having had symptoms of stone for fifteen months, and that for the last two months he has been incapacitated for work.

Oct. 26th.—Mr. Thompson introduced a lithotrite, and finding one full-sized stone at least, decided on cutting him. The bladder was evidently sensitive, which offered another objection to lithotrity.

28th.—The staff having been introduced into the bladder, Mr. Thompson performed the median operation in the same manner as in the preceding case, and extracted two rather large uric acid stones, weighing an ounce and a half. The man was stout, and the perineum deep, so that the removal was made slowly and cautiously. The tube was introduced as usual. There was no bleeding of any account.

29th.—Very little pain complained of; no opiate has been required; tube removed.

Nov. 4th.—He has steadily progressed; no bad symptoms of any kind; takes solid food; a little urine has been passed by the penis.

9th.—Going on well; diet improved; to have beer.

12th.—Everything looks well; to sit up for a short time daily.

15th.—Almost all the urine passes by the penis; walks about the ward.

28th.—The patient has been steadily progressing up to the present date, and was discharged to-day cured.

In remarking, after the last operation, on these cases, Mr. Thompson called attention to the value of the anklets designed and used by Mr. Prichard, of Bristol, and on their superiority to the old method of securing the patient in the lithotomy position by garter. They ensured perfect and continued immobility, and were adapted with the utmost ease. He the more insisted on this as the invention had been very recently attributed to M. Charrière, of Paris. They have been used by Mr. Prichard for some years, and were described by him a long time since in one of the journals. Next, he stated that he preferred the median operation to the lateral, even for stones of the size which had been seen in the theatre; and, also, why he selected this plan in preference to lithotrity for these particular cases. It was quite possible to crush such stones, but he did not think it advisable. Lithotrity was a very favourite operation with him, as was well known; and he regarded it as

most admirably adapted, especially in elderly and debilitated patients, for small and medium-sized stones, such as those from two patients recently discharged cured from the hospital. But when we had to deal with hard and compact stones, weighing an ounce and upwards, he thought that median lithotomy was on the whole a safer and better proceeding, reserving the lateral operation for stones of the largest size. There was one thing needful, however, in his opinion, in performing it, and it was a matter of the highest importance if success was to be ensured—viz., to take pains to secure the stone in good position in the forceps before withdrawing it, and to give time and patience to the extraction. The patient's life often depended more upon this single circumstance than on any other. There must be no attempt to drag it out in a hurry. Slow and steady traction, never to be hastened unduly by a single second for the sake of the bystanders, would enable you to bring safely to light a stone of very considerable size through the simple incisions of the median operation. With regard to those incisions, he had for some time preferred the mode of making them which they had seen practised—viz., the dissection downwards from the surface of the perineum to the staff, and on to the prostate, instead of making a direct puncture and cutting upwards and outwards, after the manner adopted by Mr. Allarton, to whose perseverance and sagacity we undoubtedly owed the recent adoption of median lithotomy. In the method which he (Mr. Thompson) adopted, the palmar surface of the left index-finger should be closely applied to the upper wall of the rectum while making the incisions. This enabled the operator easily and accurately to judge of the proximity of the blade to the bowel, and to make a freer and more funnel-shaped opening for the removal of the stone. Such an opening was more conformed to the relations of the adjacent viscera, and enabled us to extract larger stones with less difficulty.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

TUESDAY, NOV. 24TH, 1863.

MR. PARTRIDGE, PRESIDENT.

SUPPOSED ABDOMINAL TUMOUR, BEING A STICK, TEN INCHES LONG, WHICH HAD BEEN INTRODUCED INTO THE BOWEL FOUR MONTHS PREVIOUSLY, PER ANUM.

BY W. OGLE, M.D. CANTAB.,

PHYSICIAN TO THE DERBYSHIRE INFIRMARY.

A LAD, aged seventeen years, came under the care of Dr. Ogle, suffering from a tumour of the size of a pigeon's egg, just below the cartilages of the right ribs. It was stated to have been first perceived four months previously, when there were abdominal pain and jaundice. The nature of the "tumour," owing to the lad's reticence, was not diagnosed, but after being sixteen days in the hospital, he passed a stick from the bowels ten inches long, and it was only after much cross-questioning that he was now induced to confess that he had himself introduced it per anum. The peculiarity of the case consists partly in the moral obliquity of the youth, and partly in the fact of the stick having been introduced so high up into the bowel as to be quite across the abdomen.

Mr. PARTRIDGE said that the case would have been less remarkable had it occurred in the person of a woman. Hysterical girls were in the habit of passing substances into the rectum and vagina, and then denying all knowledge of the manner in which they had been introduced. He related a case in which a girl had passed the end of a jelly-shape into the vagina, and which was encrusted with calculous deposit. It was removed with some difficulty.

Mr. GEORGE COOPER said it was a common practice in schools for boys suffering from flatus or irritation of the rectum to pass pieces of wood into the bowel to obtain relief. He referred to the case of an elderly insane lady, in whom the bony part of an enema syringe had been detached in the rectum, and was removed with great difficulty.

Mr. BARWELL said the moral of the case was simple: that in all cases of tumour in the abdomen of any standing, an examination of the rectum should be instituted. In this case if such an examination had been made it would have terminated earlier.

CASE OF UNUSUAL DIFFICULTY IN LITHOTOMY ARISING FROM GREAT DISTORTION OF THE PELVIS BY RICKETS.

BY HENRY THOMPSON, F.R.C.S.,

SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

In this case there was very considerable obstruction to the removal of a stone from the bladder arising from the pelvis being extremely narrowed and deformed by rickets. The author is not aware of any similar case in the records of lithotomy.

G. S——, aged four years and a half, was first seen by Mr. Thompson August 20th, 1863. The symptoms of stone were severe. The child was much emaciated. A cicatrix existed in the perineum, with a fistulous opening, showing the site of a median operation for stone performed by Mr. Erichsen about ten weeks before, on which occasion several portions of the outer layers were removed. The stone was grasped, but the forceps could not be removed with it; and owing to the condition of the child it was deemed at that time prudent to desist, and postpone the attempt. The wound healed kindly up to a fistulous aperture, but diarrhœa came on, and the child left the hospital to recruit its strength.

At the time of its readmission, Mr. Erichsen, being from home, authorised Mr. Thompson to do what he considered necessary with the case. The sound passed easily into the bladder, and a large stone was detected. The child was admitted into University College Hospital Aug. 31st, and was placed on the operating table Sept. 2nd. Mr. Thompson made his incisions in the old track, and, introducing his finger, recognised the sacral promontory as remarkably prominent; beyond this the finger passed with difficulty, flatwise, and touched the end of a stone lying in the bladder, which was altogether in the abdomen. There was no room to pass lithotomy forceps up by the finger. Finding, then, by placing the right hand on the abdomen, that the stone was easily felt there, and could be pushed down to the upper outlet of the pelvis, Mr. Thompson directed his assistant to maintain it firmly there by pressure, while, with a slender-bladed polypus forceps, he extracted the stone with some difficulty entire. There was no bleeding of any consequence. Peritonitis set in next day, and proved fatal in three days.

At the post mortem the pelvis was removed: this was exhibited to the Society. The deformity was very remarkable. In the dried bone, when the soft parts were taken away, only sufficient room existed for the stone to pass through in its long axis, the dimensions of the outlet only just exceeding the smallest diameter of the stone. The upper opening of the pelvis is obliquely caudate; the sacral promontory being within ½ in. from the left pubic ramus, and barely ¼ in. from the right; from the pubic symphysis it is nearly ½ in. The stone is hard uric acid, of a flattish oval form. It is 1¼ in. in length, ¾ in. in breadth, and ½ in. in thickness.

The PRESIDENT inquired whether, previous to operating, Mr. Thompson had examined the condition of the pelvis per rectum to ascertain its condition.

Mr. WM. ADAMS observed that he had examined the pelvis of this child now exhibited to the Society, and had no hesitation in pronouncing it to be a well-marked case of true rachitic distortion. He believed the deformity to be much greater than would generally be found, even in a severe case of rickets, at the age of four years and a half. He had generally regarded the pelvic deformity as a late event in rickets, and produced by mechanical causes, such as the weight of the body telling from above directly on the pelvis, and resisted below by the thigh-bones. The ilia are thus made to fold upon themselves, and the sacrum advanced forwards towards the symphysis pubis. He suggested that an accurate description of the external characters of the child, as to its development, and the amount of rachitic distortion, would have been a valuable addition to the paper, and considered that where general rachitis was indicated by stunted growth and distortion of the upper and lower extremities, a very small and distorted pelvis might confidently be diagnosed by the surgeon, though it would probably not be found to the extent exhibited in the present specimen, at so young an age. Such a diagnosis would be useful before performing the operation of lithotomy.

Mr. SHAW was not sure that the views put forth by him on rickets, in the Society's "Transactions," threw light on the present case. He thought that the narrowness of the pelvis, from which the difficulties in the extraction of the stone proceeded, might be accounted for by the deformity alone. In the papers alluded to he had endeavoured to show that contraction of the pelvic canal was to be looked for, in adults affected during childhood by rickets, from a cause

quite independent of softening and distortion—namely, impaired development of the pelvis, in common with the body generally, from defective growth. It is known that in the interval between infancy and adolescence an important change is wrought in the proportions of the human figure. Whereas in childhood the superior division is large and heavy, and the lower small and light, it is the reverse in the adult; at mature age the superior division is small and light, and the inferior large and powerful. The explanation is, that the configuration of the infant relates to the act of parturition; the pelvis is diminutive, that it may not present an obstacle to the speedy delivery of the umbilical cord after the orifice of the womb has been dilated by the passage of the head. The configuration of the adult, on the other hand, has relation to his carrying his body erect: whence the wide and strongly-built pelvis, adapted also for the peculiar mode of delivery in women. Accordingly, in the revolution thus effected, no part undergoes such a great proportionate increase of size as the pelvis. But one of the properties of rickets is to arrest or retard the growth. Now, by doing so it not only causes the body to be generally diminutive, but it interrupts the process of metamorphosis just described. Hence the skeleton fails to possess at adolescence its proper proportions; it has stamped upon it, more or less distinctly, those of the fœtus. And as one of the most characteristic features of the child's skeleton is the relative smallness of the pelvis, the disproportionately small pelvis is a distinguishing mark of the adult rickety skeleton. That diminution of size, therefore, is a cause of narrowness in the pelvic canal, additional to, and independent of, the contraction from softening of the bones and deformity. In a case, which he recorded, of a female affected with rickets, and not particularly below the average stature, it was necessary to perform embryotomy for the removal of the child at the full period. She died from the violence. On examination of the pelvis after death, it was found preternaturally small in all its dimensions, but the deformity was of such a trifling kind that it was scarcely observable; and the conclusion was drawn that the difficulty in the delivery was to be ascribed almost exclusively to the narrowness of the canal, resulting from defective development. In reference to the case under discussion, it is not improbable that some part of the diminution of size in the pelvis was owing to the arrest of growth; but as it had not been ascertained how long the disease had lasted before the operation, no satisfactory opinion could be formed on that head.

Mr. ERICHSEN observed that when the child first came under his care it suffered from rickets to a marked extent. The tibiæ were curved, the ankles enlarged, the growth stunted, the abdomen tumid, and the head large. He did not wish to operate; but the sufferings of the child were great, and, knowing nothing of the previous history of the case, and having never heard that such a cause of difficulty had presented itself, he had no suspicion of the distortion of the pelvis. He performed the median operation, as that was likely to be attended with the least loss of blood. Mr. Erichsen then referred to the difficulties he had encountered in the operation, the almost impossibility of reaching the stone, and his complete inability to remove it. He thought, at first, that this might result from a sort of hour-glass contraction of the bladder; at all events, the opening from the pelvis was so narrow that he could not succeed in removing the stone.

Mr. HENRY LEE thought that Mr. Thompson's operation had been particularly fortunate, as it was only when the stone was in a perpendicular direction that it could pass through the opening in the bones.

Mr. BARWELL remarked that he differed in opinion from Mr. Adams as to the pathology of rickets. He (Mr. Barwell) had come to the conclusion that changes in the pelvis were not delayed after the deformation of the femur; in fact, since the one set of alterations was in many points compensatory of the other, the two concur. The outward bend of the upper part of the femur, the decreased angle at the neck, and the twist of the bone upon itself, caused the axis of the head, which ought to be transverse, to look too much forwards and too much downwards. To obviate the inconveniences and dangers of this false relationship between femur and pelvis, the latter changes its position; hence the sacrum becomes horizontal, and the lumbar spine bends *pari passu* with every alteration in the femur. The changes in shape as well as in position of the pelvis were also consentaneous with those in the thigh; but they were less easy to detect in the short curves and complicated shape of the one bone than in the long sweeps and simple outline of the other; hence they were observed later, and therefore were generally believed to occur later. These latter alterations being produced by the same agencies which deform the thighs—namely, weight and muscular action—it was therefore, even from *à priori* reasons, probable that the two would undergo simultaneous and co-ordinate, though not of necessity equal, changes. In looking at the pelvis handed round, Mr. Barwell had been struck by the evidence of the effects of weight; and he believed that this child must have been put upon the feet very early, and while the bones were very soft, even for a rickety case. Some two years ago he had made an interesting dissection of a rickety child whose left lower limb was paralyzed; but the boy had managed to get about with the right leg and his arms. At the examination it was found that the right side of the pelvis was distorted, being pressed inwards at the acetabulum; on the left side the bones were normal in shape, as far as could be judged by the eye.

Mr. T. SMITH related a case that occurred to him at the Children's Hospital, in which he performed lithotomy on a rickety child two years of age. He examined the pelvis per rectum, but could not detect any deformity whatever. The removal of the stone was not attended with any remarkable difficulty.

Mr. HOLT remarked that from all he could gather, it would appear that the present case occurred in an acknowledged rickety, unhealthy child, upon whom the median operation of lithotomy had been previously performed by the author's colleague, a gentleman of known skill and ability, without, however, the calculus having been removed. And the explanation given was that the impediment to its removal appeared to be more due to some osseous obstruction than to any want of space occasioned by the condition of the soft parts, for Mr. Erichsen was enabled to seize the stone with the forceps, and likewise to encircle it with the scoop, but could not remove it. Mr. Holt believed the operation performed in the first instance by Mr. Erichsen was the right one: it was an operation by which calculi of large size could be removed, and he had performed it upon many occasions, both in the child and in the adult, without experiencing any difficulty; and had there not been some unusual condition of the bones, Mr. Erichsen would have easily completed the operation. Mr. Holt could not endorse Mr. Erichsen's opinion that an hour-glass contraction of the bladder would prevent the extraction of the stone after it had been once seized with the forceps, neither did he consider an ordinary examination by the rectum would have revealed the diminished aperture of the brim of the pelvis; but if care had been taken to ascertain the situation of the point of the sound when the stone was struck, it would at once have shown the high situation of the bladder as well as the position of the stone; for although, as is well known, the bladder in the child is situated much higher than in the adult, yet such an examination would have at once declared the position of the bladder, and that the stone could be felt above the pubes. With such a history, the failure of the previous operation, and the explanation given by Mr. Erichsen, Mr. Holt was desirous of asking Mr. Thompson why he repeated Mr. Erichsen's operation in preference to performing the supra-pubic one?

Dr. TYLER SMITH, after examining the pelvis which was exhibited to the members, remarked, that in cases of rickets in pregnant women it was usual to make a careful examination of the pelvis. The case before the Society illustrated the importance of instituting a similar examination in cases where lithotomy had to be performed in a rickety patient. An examination in this case per rectum would have enabled the surgeon to determine the exact dimensions of the pelvis with as much ease as the accoucheur could attain a knowledge of the dimensions of the pelvis in the case of a pregnant woman by making an examination per vaginam. In Mr. Thompson's patient, the finger passed in the rectum could have reached any part of the pelvis.

Mr. HULKE mentioned the case of a child upon whom he had operated at the Middlesex Hospital. The patient was a dwarf, rickety, and had a very narrow pelvic outlet. He experienced no particular difficulty in the removal of the stone, but at the time had made a memorandum on the subject of the peculiarity which had presented itself.

Mr. FORSTER inquired why in the first operation an attempt had not been made to crush the stone? As Mr. Thompson might have failed as did Mr. Erichsen, he would also ask why the calculus was not broken up in the second operation?

Mr. ERICHSEN replied that he was unprepared for the difficulty which presented itself, and had not a lithotrite at hand; he however used the common forceps, but could not succeed in crushing the stone. Under all the circumstances he thought it better that the operation should be suspended, and a fresh effort made to extract the calculus on another occasion.

Mr. BIRKETT inquired if Mr. Thompson could give any account of the measurement of the pelvis in its recent state?

Mr. THOMPSON, in reply, said that the rectum had not been examined. The Society would remember that there was not the slightest suspicion that such a state of things existed. It was true there was some rickety distortion of the upper and lower extremities, but never had such a condition been regarded as indicating danger to the lithotomist. Not a case of the kind was on record in the surgical literature of the subject, as far as he knew, and his inquiry had been extended. He was pleased to hear from Dr. Tyler Smith that it was quite possible to ascertain the fact by rectal examination, and he himself believed that nothing could be easier; hence he doubted the existence of a rickety pelvis in those cases alluded to, in which no sign had been perceived through the bowel. But the practical lesson he had learned from the remarks of Mr. Adams, Mr. Shaw, and others was, that a highly rachitic condition of the lower limbs indicated pelvic deformity: this ought in future to be borne in mind when such cases with calculus were presented to the surgeon. Still the pelvic deformity causing difficult lithotomy must be rare when we considered the great number of children who were subjects of the operation. He now came to the question of Mr. Holt—viz., why, after the non-success of so experienced a surgeon as Mr. Erichsen by the median operation, did Mr. Thompson repeat the proceeding? why did he not adopt the supra-pubic method? He replied, first, that it is very easy to say what should have been done when all the facts have come to light—facts only known after post-mortem examination has revealed them; and it was on this account he had brought the case forward to night as a guide in future. And further, as he had stated in the paper, it was still by no means quite certain that that would have been the best proceeding in this case, for it was to be recollected that the median operation had proved quite successful in freeing the child from his stone, although he had unfortunately died from peritonitis. Then, again, on sounding, nothing was easier than to enter the bladder and find the stone, and this being so, he had preferred, as a fistulous opening already existed, to enter by the old track, instead of adopting a plan which would involve two openings into the child's bladder. Lastly, that he had not seen the first operation, and had heard nothing certain respecting it, having been abroad at the time of its occurrence. Mr. Erichsen was away from the hospital on the child's second appearance there, and had, in reply to his (Mr. Thompson's) application, kindly desired him to do what he thought proper, as delay was evidently inadmissible. In respect of Mr. Lee's remark on the large size of the stone as compared with the pelvic opening, he would state that it was only by firmly holding the stone through the abdominal parietes, which was easily accomplished, and presenting it lengthwise in that manner, that it was possible to lay hold of and extract it.

Mr. T. P. SALT, of Birmingham, exhibited

A NEW TRUSS,

invented and patented by himself, which appears to be possessed of the following advantages:—

1. It affords, in addition to the usual *inward* pressure of ordinary trusses, a second or *upward* (lifting) pressure always required for support of hernia, and attempted to be given by a variety of clumsy contrivances, the chief of which is the linen strap from behind fastened upon a peg at the lower part of the pad. This is the only truss which gives the lifting pressure in an unobjectionable manner.

2. By the peculiar mode in which the vertical or lifting springs are attached to the pads, no displacement of the pads can take place when once put in position; neither can there be any friction on the skin over the hernial openings.

3. The facility with which the position of the pads may be placed in relation to the median line of the abdomen, and the spring across the abdomen having curves coincident with it, the spring of the truss lies more evenly against the body.

4. The back support, consisting of two pads instead of one—one placed above the horizontal line (spring), the other below—gives greater stability to the front part on which the pads are suspended; hence this truss is more likely to remain *in situ*.

5. Every part of the patent truss is made by machinery, instead of by hand; hence any portion damaged or soiled can be rectified without the necessity of sending the truss to the instrument-maker.

6. The pads are an eminent improvement. The fringed edges of ordinary trusses, in which the cushions are made by stitching, are constantly chafing the skin; but by turning these cushions into a metallic capsule or clip, the edges and surface of the pads are exquisitely smooth and soft.

MEDICAL SOCIETY OF LONDON.

ABSTRACT OF DR. ROUTH'S LETTSOMIAN LECTURES, ON SOME POINTS CONNECTED WITH THE PATHOLOGY, DIFFERENTIAL DIAGNOSIS, AND TREATMENT OF FIBROUS TUMOURS OF THE UTERUS.

LECTURE I.—*On some points connected with the Pathology of Fibrous Tumours of the Uterus.*

THE author stated that the simplest idea of a fibrous tumour was to look upon it as so much fibrous tissue. Some confusion had arisen among authors from the different meanings given to such terms as "fibrous growths," "fibro-cellular," "fibroid tumours," &c. Describing first their appearances to the naked eye, and quoting Dr. A. Clark's description of the microscopical appearances of their juices, he proceeded to speak of their varieties: *fibromas*, including hysteromas; *fibroids*, including recurrent fibroids: describing particularly their microscopical resemblances and differences. Examples were given showing their occasional cancerous complication as well as transformations. He dwelt at length upon the presence of muscular organic fibres in fibrous tumours, but remarked that this structure had a much lower vitality than true muscle. Having alluded to the size which they sometimes attained, he spoke particularly of extra-uterine fibroid and pelvian bodies, which were merely extra-uterine fibrous tumours accidentally detached, and fixing themselves elsewhere to the pelvic rim.

The transformations which fibrous tumours underwent next occupied attention. 1. Softening, including a sarcomatous change, œdema, the formation of pseudo-cysts and true cysts, suppuration, and fatty degeneration. 2. Changes of softening. 3. Absorption. The cystic and suppurative transformations were dwelt upon at length. Dr. Routh alluded to Mr. Savory's opinion of the non-existence of true cysts of the uterus—i. e., cysts lined by true epithelial secreting membrane. He showed, however, that one case (Dr. Wilson's) existed, which proved the occasional although rare presence of uterine true cystic disease. Most other cysts were pseudo-cysts or geodes, covered by a fibrous envelope and débris of fibro-plastic and muscular ingredients, which constituted the original tumour. The examples of true cystoid disease in tumours occasionally attached to the uterus, Fallopian tubes, and broad ligaments, were productions analogous to monsters by inclusion—i. e., male extra-uterine pregnancies,—or to those bodies, sometimes loose, sometimes fixed, and found in the abdominal cavity, containing hair and teeth, &c.: in fact, examples of metamorphosis in some Graafian vesicle which had escaped. These tumours, if attached to the uterus, were generally fixed to its external envelope only, as in Mr. Nunn's case of Fibro-cystic Disease of the Uterus, &c.; but the uterine structure was not continuous with the growth.

The fluid of pseudo-cysts was next considered. The microscopical appearances in examinations made by M. Blin, Dr. A. Clark, Mr. Savory, and himself, were referred to. The elements of true cystoid ovarian disease were absent, fibro-plastic and muscular débris, in the main, occupying their place. The knowledge of this would prove useful in differential diagnosis. Several examples of pseudo-cysts were now recorded, and the change from a true fibroid shown to have been proved by ocular demonstration in one of Atlee's cases. Suppuration was not so uncommon as was generally supposed in fibroids, and several examples were detailed. One variety in particular, occurring in harder tumours, when these were extra-uterine and broke by an opening other than through the os, was very apt to be mistaken for cancer. Absorption of a tumour occasionally took place as an effort of nature, of which two examples were mentioned.

Dr. Routh concluded by a reference to the causes of fibrous tumours. These he believed to be local, sexual excitement giving rise to local congestion and hypertrophy. After quoting the opinions of some French pathologists to the same effect, he referred to statistics in proof. Out of some 300 cases of fibrous tumours and polypi (156 tumours), 80·2 per cent. were married women, and only 19·8 per cent. single. The majority (82·9 per cent.) had borne children. Their occurrence immediately succeeded the age when sexual passion, frequency of marriages, and fecundity were greatest—namely, between twenty-six and thirty-five. This was far more obvious when the number of women between these ages was compared with that of younger and older women. When present in old women, they were generally of several years' duration. Their occurrence in some single women might be referred, on Mr. Brown's supposition, to habits of delectation.

JUNIOR MEDICAL SOCIETY OF LONDON.

TUESDAY, NOV. 17TH, 1863.

MR. J. E. CHURCHILL (V.P.) IN THE CHAIR.

THE following pathological specimens were exhibited:—

A Fibrous Tumour of the Uterus, of very considerable size. By Mr. Willson.

A portion of a Foot removed by a modification of Chopart's Operation. By Mr. Fennings.

An Atheromatous Aorta which had burst into the Pericardium. By Mr. Sutcliffe.

Mr. WILLSON (Charing-cross Hospital) then read a paper on

THE TREATMENT OF THE EARLIER STAGES OF PHTHISIS.

The author first drew attention to the efforts of nature to effect a cure, as evidenced by post-mortem examinations. The average duration of life, he said, was longer than was generally believed, tubercles being often found in the lungs, with the inference that they had existed for a very considerable time. He dwelt next upon the symptoms and diagnosis of the very early stage of phthisis. He said that the disease did not usually manifest itself until after the application of some exciting cause; that the principal indication in the treatment was to place the patient in as favourable external circumstances as possible; that diet, clothing, air, and exercise should be especially attended to, in conjunction with the use of certain appropriate remedies; that the system should in nowise be lowered,—a diet of milk and eggs had been found of the greatest benefit. Cod-liver oil and the tincture of the sesquichloride of iron were the remedies to be preferred amongst those usually employed. The author lastly referred to Dr. Churchill's plan of treatment, and fully concurred with that physician in the efficacy of the hypophosphites. He thought that although much had been done of late years in improving the treatment of phthisis, still more was to be hoped from the use of the hypophosphites. Whatever the treatment be, it must be rigorously persevered in.

A prolonged discussion followed, in which Messrs. Braine, Bruce, Fennings, Freeman, Lyle, Pick, Sutcliffe, Walmsley, and White took part.

Reviews and Notices of Books.

The Census of Ireland for the Year 1861. Part III.: Vital Statistics. Dublin: A. Thom.

THE third part of "The Census of Ireland for the year 1861," entitled "Vital Statistics," and containing "the Report and Tables relating to the Status of Disease," has been presented to both Houses of Parliament by command of her Majesty. The value of this work it is impossible to exaggerate. It expresses in the severe simplicity of figures the history of that country for ten years. It expounds with an accuracy there is no questioning the mighty changes therein effected through the agency of causes which attracted the sympathies of the world. At this time, especially when in our manufacturing districts an entire community is emerging from privations and trials borne with exemplary fortitude, it is not inappropriate to recall the incidents this volume details, and revive the recollection of occurrences unexampled in the career of peoples. Whether the failure of the Irish potato crop was the initiative of epidemic influences separate and distinct, which together spread desolation throughout the land, or the special cause conducing to the untoward misfortunes which followed, it is now unnecessary to determine. The history of Irish epidemics is yet to be written, not as a matter of description, but of analysis, whereby may be solved, with approximate truth, the association between those material and vital phenomena which periodically eventuate in outbursts of disease. We for the present must be content to accept their results.

The "Vital Statistics" exhibit the operations of the "plague, pestilence, and famine," which for so long a period devastated the sister country. We learn that in ten years the population had decreased by the number of three-quarters of a million. Not only had the natural progress of that period been suspended, but this remarkable diminution had taken place. Before accepting these figures and facts as indicative of the changes produced by the tribulation to which we have referred, we must bear in mind that the previous census of 1851 exhibited a population which, during the last four years of its term, had been suffering the full effects of calamities to which there is no parallel. As an exposition of the effects of "the great Irish epidemic," we must, therefore, regard the present tables as affording but a partial return. And yet their contents are sufficiently startling. From 1847 to 1850 a morbid reign of terror existed in Ireland. Disease held its court throughout the land. The ground refused its food, or gave up its product blighted and decayed. Cattle perished in the fields. Typhus fever, dysentery, small-pox, scarlatina, cholera, in their combination, swept away the poor, and did not spare the rich. The voice of wailing on all sides ascended unto heaven. We believe the narration of the occurrences of this period, including the last four years of the previous census and the first two of the present, would be regarded as incredible. It may be that when Providence so afflicts a people, an all-wise dispensation ordains that after a night of mourning and woe, joy shall come in the morning, and the hours of their terrible suffering be remembered no more. Certain it is that the present condition of Ireland is one of singular prosperity, warranting that congratulation with which this Report concludes. At no period was that country so free from epidemic disease or the causes conducing to it. If even now its inhabitants be impressed with a sense of moral responsibilities and the necessity of social discipline, their sufferings will not have been in vain. There can be no doubt that the extraordinary mortality of those years of trial was materially increased by circumstances which might have been controlled. For a time the immensity of the affliction overpowered every effort for its relief. In many districts the hearts of men failed them for fear, and their counsels but increased the general dismay. As disease progressed, and it became evident that destruction must have followed delay, attempts were made to meet the catastrophe. Universal sympathy hastened to its relief, and then began the great experiment as to how could be restrained within supervision entire communities who sought for eleemosynary aid; also as to what test could be applied to prove the reality of their distress. For this there was but the alternative of workhouse reception or outdoor labour. Both contributed to the spread of disease. The former crowded into buildings often little suited for the purpose numbers who had been accustomed to freedom and fresh air, and provided them with food scarcely more than sufficient for the bare maintenance of life. The latter subjected to the "labour test" the males of families, and in return gave an amount of relief measured with severe economic precision. The object of the labour was "a test." Its utility to the country in the great majority of cases was not considered. Stone-breaking may be said to have been that most usual. All males within certain ages were so employed. The continuance of this work generally produced dysentery, which commonly proved fatal. The records of mortality of that period, and those of the present tables, show an extraordinary excess in the number of deaths amongst the males, which can only be accounted for by the injurious effects of physical labour and exposure on constitutions impaired by previous suffering.

Mr. Wm. R. Wilde, whose profound knowledge of all Irish matters lends especial value to his observations, has placed before the Government some of the principal results which have followed on this condition of affairs. The reduction in the number of the Irish population is attributable not only to the general and terrible mortality which during the year of epidemic prevailed, but also to the social results of the subsequent legislative measures affecting Irish property. Emigration has been largely carried out. One consequence is, that a system of squatting, which led to the congregation of numerous

families on wretched patches of property, no longer exists, and the sickness it contributed to maintain has proportionally disappeared. To this may be added the greater prosperity which has attended the introduction of capital and of improved methods of agriculture. In 1851, when the pressure of sickness had passed, there were yet under treatment in the Irish hospitals 42,474 persons, and of these 22,180 laboured under epidemic or contagious diseases. One in 26 of the entire community were in receipt of in-door Poor-law relief; 141 parent, 11 temporary, and 356 auxiliary workhouses, besides 21 hospitals or portions of hospitals not attached to workhouses, were occupied by paupers, to the number of 250,611. In 1861 but 50,010, or 1 in 116 of the population, were in receipt of such relief. The number of parent workhouses was also reduced to 163, and but two auxiliary houses were maintained. There were no temporary workhouses, and only 32 persons were under treatment, who were paid for by their respective unions, in certain fever hospitals; at the same time the institutions were, as regards contagion, in a healthy condition, the number of sick paupers throughout the kingdom being 16,730.

While it is eminently satisfactory to find this remarkable change in the condition of Ireland, it must not be forgotten at what a fearful price it has been purchased. The mortality amongst the members of the Irish medical profession was like that which is witnessed when a band of heroes venture on the desperate issue of a forlorn hope. Few districts but recorded some death in their medical staff. Nor was the mortality confined to the medical officers. Poor-law inspectors, guardians, relieving officers, and others engaged in Poor-law administration, died at their posts. In this universal desolation, the gravest responsibility rested on the medical officers; yet in no instance is it recorded of them that they hesitated in the discharge of their duties, even though their path lay through the valley of the shadow of death.

Mr. Wilde's Report is suggestive of many weighty reflections. It is not a mere compilation of curious statistics; it is the history of the decade of a nation and its struggles for life. While speaking of the past it points to the future. Well may its author write:—

"Viewing a census in the light of a social survey, in which the condition as well as the enumeration of all classes of the people should be considered, we believe that a knowledge of the nature, causes, and extent, as also the distribution and results of the epidemic and sporadic diseases of the country, may tend to assist the Legislature in future sanitary investigations and improvements, not only in the necessary provision for the destitute, but also in supplying suitable relief to the suffering."

This extraordinary effort of medical classification and analysis must prove of the first importance in future sanitary labours. Long may the occasion be deferred when a necessity for their operation shall arise.

Obscure Diseases of the Brain and Mind. By FORBES WINSLOW, M.D., D.C.L. Oxon. Third Edition, revised. London: Hardwicke.

THE third edition of this work increases the author's reputation. Dr. Forbes Winslow has carefully revised this valuable record of his experience and research, and now presents it to the profession in a form and at a price which leave nothing to be desired. It is unnecessary for us to commend its perusal to every practitioner who is likely to have the care of those suffering from mental affections. Dr. Winslow's admitted capability in his special branch of medicine has rendered his opinions authoritative, and familiarity with his views a necessity, in the diagnosis and treatment of those diseases to the study and description of which his life has been so perseveringly and successfully devoted. The unanimous voice of home and foreign commentators has reiterated approval of this standard work. It is the text-book of English medical psychology, and such it must continue so long as accurate description of vital phenomena is prized by the physician. As a practical exposition of sound principles for the guidance of those who may be called on to determine the nature and extent of mental affections, we know of no work deserving of higher commendation. Displaying deep research and an intimate acquaintance with past and current literature connected with the several questions it discusses, the reader is still led to the author's own views as the ultimate result which philosophic experience must adopt. The volume in this respect is a vast clinique, so faithfully and graphically portraying the author's practical observations that the physician studying its contents insensibly reverts to his awakened experience, and wonders to read, set forth with photographic fidelity, those important minutiæ the sum of which constitutes the history of disease subtle and profound. At no period was it more desirable that medical men should take counsel with each other for the accurate appreciation of cerebral disorders. The extraordinary spirit of speculation which now prevails daily develops the evidences of that wear and tear of mind resulting from those alternations of profit and loss which the share-lists perpetually exhibit. How much of recklessness and of crime is due to disease of the brain can only be estimated by the psychologist who recognises the finer shades of departure from healthy cerebral function. In his observations on the premonitory symptoms of insanity, Dr. Winslow supplies an analysis of the earliest indications of brain-disease, the study of which will enable the practitioner to combat successfully the approach of organic lesions and serious structural alterations, first proclaimed by nature through functional derangements. The curable stage of insanity is that which requires on the part of those who undertake its treatment that nice estimate of the delicate indications of mental and material change which special experience alone can give. Valuable time is lost when action is postponed through their imperfect appreciation. Dr. Winslow's remarks on the earliest premonitions of mental disease, when its development in a more complete form may be prevented by curative measures, cannot be too earnestly impressed on the attention of medical practitioners.

The careful revision by the author of this third edition still further enhances the value of the work. Its former editions have undergone the close scrutiny of medical observers throughout the world, and have widely spread the principles of a philosophic medical psychology in unison with a system of practical treatment. It is something to have accomplished this. We congratulate Dr. Winslow on the distinction which this rapid demand for the results of his experience conveys. The manner in which the volume is presented by the publisher is, we think, also deserving of the approval of the profession.

INTERMENTS.

To the Editor of THE LANCET.

SIR,—I was glad to find you directing attention in THE LANCET of last week to the important subject of the danger to which the public are exposed by the present most irregular practice of interments, and the facilities thereby afforded for the perpetration of crime. Undoubtedly the system of allowing interments to take place without a medical or coroner's certificate is an evil of which all practitioners must have seen the danger; at the same time we cannot but feel the injustice of being frequently called in "at the death" simply to give a certificate to legalize the interment, without obtaining any remuneration for the service rendered.

I would respectfully suggest that any amendment proposed in the Registration Act of 1837 should contain a clause authorizing the payment of a fee from the Consolidated Fund to the medical men who have to furnish certificates of death.

I am, Sir, your obedient servant,

Nottingham, Nov. 1863. J. C. LOBY MARSH, M.D.

THE YEATMAN MEMORIAL HOSPITAL, SHERBORNE.—This building will be immediately commenced, as sufficient funds are already subscribed to warrant the expectation of the whole amount required being raised. It will consist of a central block with two wings.

THE LANCET.

LONDON: SATURDAY, DECEMBER 5, 1863.

THE case of SYMM v. ANDREWS and FRASER is one of those extraordinary occurrences which mark the present condition of our system of jurisprudence. For five days important public business has been interrupted, and the attention of the highest Common Law tribunal in this country occupied, by a trial the facts of which a special jury disposed of without a moment's hesitation. The action was for breaking and entering the plaintiff's house and making a disturbance therein, and for assaulting and imprisoning her. The defendants pleaded jointly, "not guilty," and "leave and licence." The plaintiff, a widow lady, possessed of moderate fortune, resided in Oakley-square, Camden-town. The house in which she lived was the property of Dr. FRASER, one of the defendants. Mr. ANDREWS, surgeon, was her immediate neighbour. These gentlemen had previously been in partnership. In October, 1861, the plaintiff was taken ill from what was alleged to be an attack of rheumatic gout. She called in Mr. ANDREWS, who, after a few days' attendance, finding her case was a serious one, had the benefit of Dr. FRASER'S advice. Both of these gentlemen regarded her illness as an attack of *delirium tremens* induced by alcoholic excess, and sanctioned her being placed under efficient control. We use the term "sanctioned" advisedly, inasmuch as a lady friend residing in the plaintiff's house had previously taken the initiative in procuring attendants for that purpose. The symptoms becoming aggravated it was agreed that Dr. BARNES should be requested to visit her. This gentleman was known to the plaintiff, who had expressed a wish to see him. Dr. BARNES accordingly met Mr. ANDREWS and Dr. FRASER in consultation, and completely coincided in their views of the case and its treatment, entirely approving of the measures then being pursued. It was requisite in the course of the attendance of these gentlemen to pay very close attention to the patient, and to direct those who had been placed in personal charge to take every precaution which practitioners familiar with the disease know to be essential, not only for safety but cure. The treatment pursued was entirely successful. In a short time the patient became convalescent. Instead of feeling thankful for restored health and anxious to consign to oblivion the circumstances which had attended and conduced to her illness, she, under some unhappy influence, was advised to institute an action at law with the hope of recovering damages from her medical advisers on the grounds already set forth. The plaintiff thus drags from desirable obscurity facts, now before the public in all their filthy detail, which, for the sake of decency, if not for her own respectability, had better been forgotten.

These facts need little comment. They afford a sad illustration of that complete *abandon* to intoxication which in some constitutions assumes a paroxysmal form, and which during its continuance debases its wretched victim below the level of the brute. It would be waste of time were we to repeat the evidence given by disinterested witnesses as to the condition of the unhappy plaintiff during the period of her illness. Drunken, suicidal, violent, and dirty, there was nothing to enlist sympathy in the details beyond this—that the outbreak of maudlin intoxication in question was shown to have been an exceptional occurrence, which admitted of possible explanation on the ground of a depraved appetite induced by constitutional derangement, or, as was alleged, by a gouty condition of system. Whatever originated the drinking fit, its effects for the time threw all other ailments into the shade, occasioning as it did unmistakable delirium of the most formidable character. A fictitious interest invested the case from the distinctness with which the plaintiff gave her evidence. Her testimony evinced an extraordinary amount of natural sagacity. To the manner in which she sustained the ordeal of the witness-box can alone be attributed the fact of a special jury having heard the case during five days, to its close, without anticipating that verdict at which they so immediately arrived. To the defendants in the trial this verdict comes in the questionable shape of confirming their opinions, of which no medical man entertained a doubt; of removing imputations, which no one in court ever adopted; of vindicating their sincerity, which no honest man ever questioned; and of saddling them with very considerable expenses, for which they have no possible redress. Notwithstanding the anomalous condition of affairs thus set forth, we cannot regret this trial, inasmuch as it elicited from the highest Common-Law tribunal in this country an exposition of the principles which should guide juries in determining the question of the responsibility of the members of—as the Lord Chief Justice well termed it—our "noble profession." While, however, we are glad to have received from this most gifted Judge the high tribute of his admiration and respect, we must at the same time question the wisdom of a legal system which permits the facility at present existing for thus involving in costly litigation our brother-practitioners, at whose expense this eulogy has been purchased. In every such trial the common interest of professional men is involved, and we much mistake our medical brethren if they will not so consider it. Though the verdict has been recorded for the defendants, the costs will yet impose upon them the outlay of some hundreds of pounds, for the recovery of which the law has made no adequate provision, and for the discharge of which there is no available professional fund. This is to be regretted, more particularly in the present instance, inasmuch as the independent action of members of the medical profession who, in the *bonâ-fide* exercise of their discretion, advise requisite treatment, has been well vindicated and established at the expense of the defendants.

The summing up of the Lord Chief Justice is deserving of special attention. His comments on our profession—its duties and responsibilities, its social importance and public usefulness—are only what we might have expected from one so justly exalted and so eminently competent to form, from personal observation and judicial experience, a fair and dispassionate conclusion. His Lordship observed to the jury that "he had been desirous of affording them an opportunity of fully considering the case, as it was one of very great importance, involving as it did the question how far medical men, acting honestly and to the best of their judgment for the good of their patients, were responsible; and while on the one hand the jury ought jealously to watch over and uphold the personal liberty of the individual, yet on the other hand they ought to be equally careful not to impair the efficiency of medical assist-

ance by exposing medical practitioners to be harassed by vexatious actions."

Commenting on the facts of the case, his Lordship expressed his surprise "that there was no plea of justification on the record, and intimated that, if the evidence for the defence was to be believed (and to him it appeared impossible not to believe it), such a justification would have been abundantly established. Assuming," his Lordship continued, "that a medical man, when called in by a patient, was entrusted with power and authority to do all that was necessary, the pleas of 'not guilty' and 'leave and licence' would not avail them (the defendants), as the plaintiff had repeatedly desired that the attendants should be removed." This legal omission gave occasion to the Lord Chief Justice to draw a distinction between the position of medical men who take the initiative in the control of patients, and those who are called on to advise as to their treatment when they are under control: "The jury must carefully distinguish between direction by way of authority and command, and by way merely of advice to another as to what it may be right to do. And there was no case in which it was more necessary to advert to that distinction, and to adhere to it more carefully, than in the case of medical men; for when medical men were called in, it often became necessary for them to give directions as to the care and management of their patients. There was not a day on which this did not take place, and care must be taken not to confound that which was instruction and advice with that which was authority and command."

The grave responsibilities which are often imposed on members of our profession were by the Chief Justice fully admitted. His Lordship failed not to impress them on the attention of the jury, observing that, "If they believed the evidence for the defence, there could be no doubt it was the duty of the defendants, as her medical attendants, to do what had been done, and give the advice which they had given; for the law gave them a certain power and protection in the honest exercise of their professional functions." Referring to certain remarks by the counsel for the plaintiff as to the *esprit de corps* which induced medical practitioners to help each other out of professional embarrassments when negligence or other causes have brought them into difficulties, his Lordship further observed: "No doubt the power which the law gave to medical practitioners in certain cases might be, and in rare instances had been, abused for interested purposes; but these instances were so rare that he hoped the public might continue to place that confidence in the members of this noble profession which had hitherto been reposed in them, and which he believed was deserved." The whole charge of this eminent Judge was a vindication of our profession, and its right to the consideration and protection of the law when honestly discharging its duty.

We have before this had occasion to direct attention to the lamentable ease with which actions of this nature can be brought. We trust ere long to hear of measures being taken in which, in all such instances, security for costs will be recognised in the event of an adverse verdict. Actions against medical men involve to them loss of time and of money. The cases are, indeed, exceptional in which their reputation suffers. The liberty of the law, to our mind, savours strongly of licentiousness when it permits such an exhibition as that on which we comment. The necessity of all engaged in the treatment of disease being protected in the discharge of their duties has a double significance, which, in his concluding remarks to the jury, the Lord Chief Justice fully recognised when he desired them "to consider the case, not only with reference to the interests of the individuals committed to the care of medical men, but also with a view to their interests in another sense—taking care not to impair or neutralize the energy and usefulness of medical assistance by exposing medical practitioners unjustly to vexatious and harassing actions." The public importance of these observations it is impossible to over-estimate.

ONE of the most prominent topics of the day is unquestionably that which relates to the preservation of the health and protection from disease of the "working bees" of our social economy. We are like an enormous hive swarming with occupants, in the press and turmoil of whose labours numbers are probably trodden on by their stronger fellows, or are forced to toil under conditions hazardous to their existence. With men and bees it is too often the case that the weaker must "go to the wall." It is the duty of the stronger, however, to take heed that they do all they can for their less fortunate companions. It is true that great efforts are being made in many respects to ameliorate the hygienic relations of the working people of this country. Their habitations, their clothing, diet, and even amusements, are being carefully considered. Their hours of labour are regulated, and the conditions under which they perform their working duties are subjected in several instances to direct judicial supervision. There is unquestionably plenty still to do; but we cannot agree with those grumblers who insist that as yet we have done nothing. Men must earn their bread by the sweat of their brow, and mere toil can never be essentially the same as pleasure. When we hear it said that pleasure may be made toil, and toil pleasure, we all know very well what the conventional phrase would imply; but we know at the same time that true toil and real pleasure are not identical. As human affairs go on, too, we see no alternative but that certain modes of toil must always be hazardous and even perilous to the physical safety of the workmen. These risks may be reduced to their minimum; but as to some social Utopia, where they do not exist at all, we do not credit its possible existence. In doing all that can be done to improve the habits of the general body, the benefits resulting spread their influence upon the higher and limited circles. But there are certain questions which are important directly in reference to the latter, as well as thus indirectly. There is one, indeed, which is of the greatest interest to every one of the community, from peasant to peer, from noble to king. It is not going too far, perhaps, to say that to some royal circles of the globe it is vitally important. If it be essential to take care of a good constitution when we have got it, it is surely not less desirable that we endeavour to obtain as many good constitutions as we can. If the people's health and physical strength are to be preserved, let us provide from the very outset that they be of the kind most worthy of preservation. The best safeguard to this will be that the rising generation spring from well-assorted marriages. The old should not marry with the young, nor the strong with the weak and debilitated. People with marked hereditary taints should pause ere they run the risk of transmitting their endowments to a long line of suffering successors. The strong and the healthy should beware that it be no act of drunken or insensate folly which records the honour of

paternity they have gained. At the moment of conception does the mysterious virtue of the creative force transmit not only an impression of the physical being of the parents, but likewise the moral physiognomy (if it may be so called) that lies beneath its surface. The impoverished life, the tainted blood, the mental and moral flaws, become the dowry of the descendants. But it is not essential only for the propagation of a healthy offspring that each parent should be of sound body and pure mind at marriage, but, if a very prevalent feeling and many statistical data be correct, it is necessary that such marriage be not contracted between those who are "blood relations." There has always been a belief, both amongst the uneducated and the wise, that marriages of consanguinity are extremely apt to be attended by results which injuriously affect the physical and psychical constitutions of the children. The law of MOSES interdicted connubial union within the third degree of relationship. The Roman law—stricter formerly than in later times—discountenanced marrying kinswomen in any degree of blood. Whilst the Roman-Catholic Church declared itself through GREGORY the Great concerning such unions: "Experimento didicimus ex tali conjugio sobolem succrescere non posse." But what may be termed a scientific demonstration of the truth of this idea was attempted only in recent times. To Messrs. RILLIET, BEMISS, and BOUDIN, in particular, we are indebted for assistance in this way. Speaking generally, we may say that the data these inquirers bring forward go to show that scrofula, epilepsy, insanity, albinoism, deaf-mutism, idiocy, and defective vision, are the various impairments of the offspring arising from the influence of too frequent admixture of the same blood. They likewise demonstrate that the percentage of calamitous results to the progeny is largely increased as such relationship becomes closer.

In the report of a paper by Dr. HELSHAM,* read before the Philosophic Institute, this subject is significantly illustrated, particularly as regards the production of deaf-mutism, which, according to nearly all observers, constitutes one of the saddest and most frequent effects of marriages of consanguinity. The results of various inquiries, as here summed-up by this writer, would appear to prove that of the estimated total of 250,000 deaf-mutes in Europe, nearly 30 per cent. spring from related parents, the parents being well formed, in good health, and free from any deterioration of body or mind that would indicate a liability to have unhealthy offspring. The frequency of these cases has a relative proportion to the degree of consanguinity of the parents; the liability, however, being remarkable in unions betwixt nephews and aunts, and which special risk nothing would *à priori* point out. During the researches instituted, a curious tendency to alternations has sometimes appeared. Where the degeneration has seemed to spare the immediate descendants, it has affected their issue; thus passing over one generation to visit the next.

Whilst we agree with Messrs. RILLIET, BEMISS, BOUDIN, and HELSHAM, that unprejudiced and accurately weighed investigations will support the feeling very generally prevalent that marriages of consanguinity are trespasses on the laws of nature and are detrimental in their results to the human race, it is right to state that Messrs. CHILDS, SANSOM, and ISIDORE have called in question the truth of certain of the deductions of the former authorities. M. ISIDORE, who is the Chief Rabbi of the French Israelite Consistory, has strongly endeavoured to refute that portion of M. BOUDIN'S theory which asserts that to the toleration by the Mosaic law of distant consanguineous marriages is to be attributed the number of deaf-mutes born from such unions. The Chief Rabbi concedes that the Jewish law permits of marriage between niece and uncle; but since it is prohibited by the civil law, a dispensation to contract it can be obtained only with much difficulty. In the Paris congregation, which amounts to at least 25,000 souls, not four deaf-mutes exist. It is calculated that there are at least 100,000 Jews in the French empire; and, taking as the basis the proportion living at Paris, it may be affirmed that all France would barely furnish fifteen deaf and dumb Jews—a proportion totally opposed to M. BOUDIN'S estimates. It has been maintained, further, that history presents facts altogether antagonistic to the doctrine of degeneration from the cause under notice, and that in most early settlements each community must necessarily be composed in a high degree of blood relations. Thus it will be seen that here, as in all other arguments, there are two sides to the question. For ourselves, however, we must coincide with those who maintain that past history and present observation will support the opinion that the most vigorous people have sprung from the ingrafting of nations differing in constitution and temperament from each other, and from the marriage of individuals devoid of blood relation.

* The Evils resulting from the Intermarriage of Relations. By Dr. Hector Helsham, F.R.C.S. London: Collingridge.

Medical Annotations.

"Ne quid nimis."

THE COTTON-FAMINE AND THE MORTALITY OF LANCASHIRE.

WE have from time to time reported the various opinions that have been set forth with respect to the influence of the distress in Lancashire on the health of the distressed operatives. These opinions, as our readers will remember, were contradictory. During the first period of the distress, when it became known that the mortality of the affected districts was less than when the cotton trade was prosperous and labour abundant, several suggestions were offered to explain this apparent anomaly. More particularly it was suggested that the reduction of the deaths might perhaps be accounted for by the greater care which the unemployed mothers could give to their children, and by diminished exposure of the operatives to those sources of pulmonary disease which were rife in the factories and workrooms. The excessive death-rate from infantile mortality and pulmonary affections in Lancashire during ordinary periods gave some show of probability to these suggestions. More recently, when the mortality began to increase, it was feared that at last the distress was telling on the sufferers. Much anxiety was thus naturally aroused, which happily was removed by time and observation.

After considerable variety in expressions of opinion and complication of statement on the presumed anomalies observed in the mortality of the cotton districts since the commencement of the distress, we turn with no little pleasure to an examination of the facts presented by a local observer, whose conclusions merit the highest consideration. Dr. Noble very lately laid before the Statistical Society of Manchester a paper on the "Fluctuations in the Death-rate of Lancashire, with special reference to the supposed Influence of the Cotton Famine." He subjected in particular to careful examination, over a long period, the mortality of the Ancoats district,—the most populous district of Manchester,—and he has been unable to trace, either in

the total amount of mortality or in the different maladies giving rise to death, any variation from the fluctuations observed in ordinary periods. He concludes, therefore, that there has been no marked variation in the mortality as arising from the cotton famine. He does not, indeed, see any reason to believe that the mortality has at any moment been particularly lightened, and he indicates that any increase which may have marked certain quarters of the year has been due to ordinary causes, to atmospheric influences, and to the spread of the common epidemic disorders. Dr. Noble compares the period of the cotton famine with the period of the so-called Irish famine in the years 1846-47. He shows how this famine influenced the cotton districts, and that the distress produced did really lead to an alarming increase of disease, so that the deaths in the Manchester registration districts attained the extraordinary number of 9321, or nearly 2000 above the number of births. On that occasion typhus was the scourge, and the tale it told was clear and unmistakeable. But in the immediate past, although typhus has shown itself for a moment on one or two occasions, no such sad result has taken place. The fluctuations of the death-rate have hitherto not exceeded recognised limits, and throughout a terrible crisis—a crisis unknown before in any country—life has retained its value in the very heart of the misery.

Dr. Noble's observations are valuable in more than one direction. They show the ready methods by which, in times of anxiety and peril, ordinary events are transformed, even by well-informed men, into nine days' wonders. They prove the value of sound sanitary measures in warding off pestilence. They stand to attest, better than any words we could use, the efficacy of that spontaneous and noble charity which reigned throughout England last year, and which, saying so little, did so much. The medical profession performed its part in that great act with becoming liberality, and it is no light thing to report to the many who sent their gifts through us that every penny was utilized, that disease was stayed, and that the profits of the investment are already largely returned.

The Central Executive Committee in their last report, while quoting Dr. Noble's opinion, together with the opinions of the Registrar-General, Mr. Purdy, and the Local Sanitary Association, that the influence of the distress in the cotton manufacturing districts has not yet been traced in their mortality, do not neglect to urge the expediency of precautions against a winter of greater severity than the last. They point out the necessity of an allowance of fuel for those families which have been long dependent on relief. They also call the attention of the local authorities to various sanitary precautions, especially the immediate emptying of cesspools and ashpits; the lime-washing of houses; the removal of all nuisances; and a house-to-house visitation to secure cleanliness and ventilation in the dwellings of those in the receipt of relief, as well as to institute the arrangements required to prevent the spread of infectious and contagious disease. Provision has been made for the supply of suitable clothing to the cotton operatives employed on public works, and the committee cautions the local committees that the fluctuations of employment will necessitate the utmost vigilance in order to meet the real wants of the employed.

ABSTRACT SCIENCE.

THE appeal of the secretary of the Royal Institution for increased support of its scientific departments goes really to the heart of one of the most serious subjects which the nation can consider. The position of science in this country is a matter of vast importance, and there is at present an indication of a rapid decline of its scientific greatness. That which Babbage and Herschel have publicly declared may be repeated with confidence, though with pain. Abstract science is almost as systematically neglected in this country as it is encouraged and cultivated on the Continent. Yet if no higher patriotism prompt to an opposite course, the most material anxiety for industrial greatness would counsel it. The man of abstract science may seem to the million an object of little interest, and a person of small national importance, as he guages correlations of natural forces, and estimates the electrical properties of certain bodies, or wanders into the mazes of transmutation of chemical organic radicals; but, however distant these researches may be from apparent practical application, yet those who pursue them are the real benefactors of their country, and the overflowing of abstract science constitutes the wealth of practical industrial science. We sink below the past in our poetry and our sculpture—in our works of art and of imagination. We rise above it in our science, and in the great march of ages men of abstract science lead the van, and the practical men follow near them. The greatness of England is bound up in the labours of her chemists, her physicists, and her geologists, and those who labour with them and reduce abstract law to practice. Yet in England science is languishing for want of even feeble encouragement. At the Royal Institution, long celebrated through Europe, and still known as the scientific home of some of our greatest philosophers, the limited means at the disposal of the managers for the remuneration of their eminent professors is incredibly small; so small that it can hardly be named or thought of in that relation at all. Two hundred a year, three hundred a year! These are the stipends attached to the appointments filled in that institution by the most distinguished *savans* in Europe, whose names are a boast to the country, and their labours a fertile source of its greatness. Two hundred a year (writes Dr. Bence Jones) is all that we can offer to Dr. Frankland, one of the most eminent of modern chemists, and who has made considerable sacrifices in order to give his time to certain chemical researches of great promise and importance to the scientific world. Then, instead of laboratories and instruments such as they have at Bonn, Giessen, Heidelberg, and elsewhere, those at the Royal Institution are insufficient for the purposes needed, and much larger funds are required. Surely if they can find £20,000 at Bonn for building a chemical laboratory, and can tempt one of the most celebrated chemists now residing in England with a large salary and unlimited means of research, we ought to find at least the means for providing a first-rate laboratory, with proper assistants and apparatus, and attaching to it an annual stipend for the professor to whom it is to be entrusted, something higher than that of a bank cashier or a draper's assistant. Let the words of Bacon have their due weight:—

"And as founders of colleges plant, and founders of lectures water, we must next note a defect in public lectures, whether in arts or professions—viz., the smallness of the salary generally assigned them; for it is necessary to the progress of the sciences that lecturers be of the ablest kind, as men intended for propagating the sciences in future ages, and not for transitory use. And this cannot be unless the profits content the most eminent in every art to appropriate their lives and labours to this sole purpose; they must therefore have a competency allowed them proportionable to what might be expected from the practice of a profession. For to make the sciences flourish David's military law should be observed—'that those who stay with stores have equal with those who are in action;' or otherwise the stores will be ill-attended. So lecturers in the sciences, as being the guardians of the stores and provisions whence men in active life are furnished, ought to share equal advantages with them; for if the fathers of the sciences be weak or ill-maintained, the children will feel the effect of it."

FOUNDATION OF HOSPITALS.

WITH the vast increase of our population, the need for and importance of hospitals, as great public refuges for the diseased and the afflicted, grow to a parallel height. Hitherto the munificence of private individuals has been effectual in supplying these great houses of charity in nearly adequate number and with almost sufficient funds. The liberality of the men of this generation has been perhaps less notable than in the past for the magnificence of individual benefactions, but it is gene-

ral, frequent, and well-directed. The passing records of the week have included three splendid gifts—the noblest that of Mr. Sassoon, a Jewish merchant of Bombay, who gives £15,000 to endow an hospital at Poona, which is to be open to people of all nations and creeds.

"The evening was fair," says the *Times of India*, "and the scene interesting. The east and the west seemed to confront each other. Surrounded by a crowd of councillors, civilians, and officers, stood the Pro-Consul of our great dependency. Opposite to him, attended by a few native and European friends, stood the stately Jew. Certainly, in point of costume, our inferiority was apparent enough. The plain dress of an English gentleman, even when made significant of rank and honour by the glittering of stars and the red riband of the Bath, but ill bears comparison with the flowing choza of camel's hair, and that high-folded turban of richly mingled colours which Rembrandt loved so well and painted frequently. The old Mesopotamian Jew, with grizzly eyebrow, high-arched nose, and bony features, stood at the tent door, and as the guttural sounds of his formal Arabic compliments fell on the ear, he seemed to take us back three thousand years, and reminded every spectator of that other wealthy old Mesopotamian Sheikh whose life and history are wound up with all our earliest associations, and whom Christians know and venerate as the Father of the Faithful."

The Governor, in reply to the address of the Jewish merchant, referred to the many acts of intelligence, munificence, and public spirit by which the latter had aided the Government, and attracted the admiration of the best friends of India.

A less picturesque scene, but one equally honourable to the chief actor, took place during the week at Birkenhead, where Mr. Laird was entertained on the completion of the new Birkenhead Hospital, which has been built at his expense, the cost being some £5000. Mr. Laird is the father of the town, and, as with David Sassoon, this is only one of other acts of public munificence. The hospital is admirably designed, and, with its polished floors and impermeable walls, is said to combine all the excellencies of a model institution. Its staff includes some very able men, of whom one especially—Mr. Jacob—is favourably known to many in the metropolis. There is reason to anticipate a career of great usefulness for this institution.

A third fact recorded during the week is the donation of £2000 by Mr. Thomas Kerr, of The Grange, Monifieth, to the Dundee Royal Infirmary. A new wing has also been opened of the Radcliffe Infirmary. Surely it cannot be said that the old spirit of liberality which animated Guy and Radcliffe is dying out in the country.

MASTERSHIP OF SURGERY, CAMBRIDGE.

WE print elsewhere the questions set at the recent examination for the degree of Master in Surgery at Cambridge. This is the first examination of the sort in an English University, and it is a happy indication of the combination of conservative spirit with an intelligent tendency to progressive advance that the first examination of the kind should have been held at what used to be one of the strongholds of Tory medicine. We feel particular satisfaction in finding a place for these papers, because there is every reason to regard this step of connecting the surgical branch of the profession with the Universities as one of considerable importance, and likely to bear much fruit, especially in the University of London, where, as we lately announced, arrangements have been completed for conferring a like degree. This Cambridge examination has been, we learn, very thorough and very practical. The examination by the bedside in the hospital has been carried out carefully, and we could wish that all students examined in surgery in London were subjected to that test in this important part of their work, as is the case with the candidates for the degrees of the University of London. The examination for degrees in Medicine are just now concluded, and every candidate has been placed alongside a patient in the wards of St. Mary's Hospital—where the practical tests were this year conducted by Dr. Sibson and Dr. Parkes,—and then and there required to write out his analysis of the symptoms and history of the patient, and lay down his treatment for the disease or diseases which he might discover to exist. What a great thing it would be if the College of Surgeons could make a similar arrangement; if they could take the candidates into the wards of hospitals and see how they could bandage a leg, set a fracture, reduce a dislocation, name a skin disease, and diagnose an aneurism or a hernia. The thing is not impossible, although the number of candidates makes it somewhat difficult. It is really worth the consideration of the Council and the Examiners whether their ordeal for students ought not to be made as *practical* as those of the Universities.

THE CAUSE OF DEATH OF SERGEANT-MAJOR LILLEY.

CONSIDERING the importance of the medical aspects of the Crawley Court-Martial, some surprise may be felt that greater care has not been taken to define the precise nature of the disease which killed Sergeant-Major Lilley, and to ascertain its ordinary causes. Some confusion appears to have been made between heat apoplexy and serous apoplexy, both of which, of course, occur in India, but which are considered by the most modern authorities to be essentially distinct in their nature. The temperate are, we believe, equally exposed with the intemperate to heat apoplexy, but not so with serous apoplexy. This is a point of great importance and deserving some attention on this occasion. Sir Charles Napier, although so temperate a man, was attacked by heat apoplexy; and it may be felt as somewhat surprising that this did not strike those who advanced his case on the present trial. We refer to this professional question as one of considerable importance and quite apart from the criminal issues of the court-martial, as to which we reserve all comment until the case is complete. When heat apoplexy prevails amongst men it is said always to prevail amongst horses, and other animals too, though not so much as among men crowded in insanitary barracks or with nervous systems unstrung. We would strongly advise those interested in this subject to refer to the recent works of Sir Ranald Martin, and especially also to the lately published work of Dr. Aitken "On the Science and Practice of Medicine." They seem hardly "up to time" in the matter at Aldershott.

A GOOD SAMARITAN.

THE following tribute of affectionate gratitude to Dr. Turnbull, Surgeon of the Inniskilling Dragoons, is extracted from *The Times* of the 2nd inst. Such instances of generous self-devotion amongst our brethren we know are not uncommon. At the present time, this testimony to the kindness of heart and the noble generosity of Dr. Turnbull has peculiar significance. Without reference to the result of the Court-Martial now attracting universal attention, it is, at all events, due to the Surgeon of the Inniskilling Dragoons to place on permanent record, in our columns, an unequivocal testimony to his character for humanity.

"*To the Editor of The Times.*

"Sir,—More than a dozen years ago my late brother, Captain C. R., was travelling by dâk to Calcutta, in very ill health, accompanied only by his little motherless child and his native servants. He was to embark for Europe on sick certificate, in the forlorn hope of saving his life by that voyage. But at Umballah he became too ill to proceed, and there, at the dâk station-house, he breathed his last. The medical officer of a cavalry regiment then stationed at Umballah had been hastily summoned, but found a dying man, already speechless and nearly insensible. The doctor remained with him till he expired. Then he carried the orphan little girl in his arms home to his wife, who truly did not need his recommendation of the little waif to her pity and tenderest care. When a formal

examination of the deceased traveller's papers took place, his name, position, &c., were ascertained, his death was put in the Indian papers, and his family in England were communicated with. A very near relative of the child's late mother was an officer stationed not far from Umballah. He and his wife declining, however, to take charge of the little orphan, or to supply any of her temporary needs, their duty was cheerfully assumed by the doctor and his wife. They gave the rejected little one a happy home during all the months she remained in India—until, indeed, they could by careful inquiry find satisfactory and fitting protection in which to send her to her father's family, anxiously expecting her in England. Till that family could communicate with them they supplied all the child's needs at their own expense, and were in all respects as fond and indulgent parents to her.

"The good Samaritan who was the neighbour of that little helpless wayfarer was Dr. Turnbull, of the 6th Inniskillings.

"London, Dec. 1st, 1863." "Yours very obediently,

"M. R.

THE

ANALYTICAL SANITARY COMMISSION.

MEDICINES,

THEIR

IMPURITIES AND ADULTERATIONS.

SPIRITUS AMMONIÆ AROMATICUS.

AROMATIC SPIRIT OF AMMONIA, commonly called *sal volatile*, consists of a mixture in certain proportions of neutral carbonate of ammonia, spirit of wine, water, and flavouring substances. The recipe for its preparation given in the London Pharmacopœia is as follows:—Hydrochlorate of ammonia, six ounces; carbonate of potash, ten ounces; bruised cinnamon and cloves, of each two drachms and a half; lemon-peel, five ounces; rectified spirit, and water, of each four pints: mix, and distil to six pints.

In this process double decomposition takes place, and neutral carbonate of ammonia (which distils over,) and chloride of potassium (which remains in the retort,) are formed.

Supposing the whole of the ammonia to be converted into the carbonate and to pass over into the receiver, each hundred grain measures of the aromatic spirit of ammonia should contain 4·39 grains of the neutral carbonate of ammonia. This quantity is equal to 2·63 grains per drachm.

The framers of this process had in view especially the formation of the neutral carbonate of ammonia, which, on account of its containing less carbonic acid, is much more pungent than either the sesquicarbonate or bicarbonate of ammonia, while at the same time it is free from the causticity of uncombined ammonia.

The process, however, though well conceived, has certain serious defects (to be pointed out hereafter), which in practice detract greatly from its value.

The specific gravity of this preparation, according to the London Pharmacopœia, is 918.

In order to obtain a reliable standard of comparison, we have ourselves carefully prepared some of this preparation, using spirit of specific gravity 838, and mixing the several ingredients in their exact proportions. The resulting compound had, at 60° F., a gravity of 923·8, and contained 3·7 per cent. of the neutral carbonate of ammonia.

We thus perceive that a large proportion of the carbonate of ammonia formed is lost.

We have stated that the object of the framers of the Pharmacopœial form was the formation of the most pungent of the carbonates of ammonia and the non-liberation of free ammonia, the causticity of which is lessened—shielded, as it were, by its combination with carbonic acid. The Edinburgh College, however, to our surprise, seems to have no fear of caustic ammonia, and orders the aromatic spirit of ammonia to be made without distillation by adding the essential oils of lemon and rosemary to their spiritus ammoniæ, which is made with fresh burnt lime, hydrochlorate of ammonia, and spirit of wine, and which, therefore, consists of a solution of caustic ammonia in spirit.

We will now proceed to record the results of the analyses.

RESULTS OF THE ANALYSIS OF THIRTY-FOUR SAMPLES OF AROMATIC SPIRIT OF AMMONIA PURCHASED IN THE METROPOLIS.

Sample 1st.

Purchased of—Messrs. Corbyn, Messer, Messer, and Co., late Bucklee, Oxford-street.

Specific gravity 916·0. *Alkalinity* equal to 3·10 grs. per cent. of hydrous neutral carbonate of ammonia; actual alkalinity consists of 53·100ths of a grain of *the neutral carbonate* and 1·00 gr. of *free* or *caustic ammonia*.

Sample 2nd.

Purchased of—Messrs. Garden and Robbins, 372, Oxford-street.

Specific gravity 890. *Alkalinity* equal to 7·90 of hydrous carbonate of ammonia, but made up actually of 1·98 grs. of *that carbonate* and 2·31 grs. of *free* or *caustic ammonia*.

Sample 3rd.

Purchased of—Mr. W. T. Cooper, 26, Oxford-street.

Specific gravity 889·7. *Alkalinity* equal to 7·70 grs. of the hydrous neutral carbonate, but consisting really of 3·71 grs. of *that carbonate* and 1·56 grs. per cent. of *caustic ammonia*.

Sample 4th.

Purchased of—The General Apothecaries' Company, 49, Berners-street, Oxford-street.

Specific gravity 915·7. *Alkalinity* equal to 3·30 grs. of the neutral carbonate, but made up of 69-100ths of a grain per cent. of *that carbonate* and 1·02 grs. of *caustic ammonia*.

Sample 5th.

Purchased of—Messrs. Godfrey and Cooke, Conduit-street.

Specific gravity 834·8. *Alkalinity* equal to 2·65 grs. per cent. of the neutral carbonate, but made up of 17·100ths of a grain of *that carbonate* and 96·100ths of *caustic ammonia*.

Sample 6th.

Purchased of—Rouse and Co., 1, Wigmore-street, Cavendish-square.

Specific gravity 890·5. *Alkalinity* equal to 6·80 grs. per cent. of the neutral carbonate, but made up of 3·62 grs. of *that carbonate* and 1·24 grs. of *caustic ammonia*.

Sample 7th.

Purchased of—Mr. Wilcox, Oxford-street.

Specific gravity 897·5. *Alkalinity* equal to 4·80 grs. per cent. of the neutral carbonate, but made up of 2·22 grs. of *that carbonate* and 1·00 gr. of *caustic ammonia*.

Sample 8th.

Purchased of—Messrs. Lofthouse and Thomas, 7, Upper St. Martin's-lane.

Specific gravity 922·2. *Alkalinity* equal to 3·50 grs. per cent. of the neutral carbonate, but made up really of 25·100ths of a grain of *that carbonate* and 1·27 grs. of *caustic ammonia*.

Sample 9th.

Purchased of—Mr. W. P. Roberts, Little St. Andrew-street.

Specific gravity 923. *Alkalinity* equal to 3·80 grs. per cent. of the neutral carbonate, but made up of 87·100ths of a grain of *that carbonate* and 1·14 grs. of *caustic ammonia*.

Sample 10th.

Purchased of—H. Cooper and Co., 20, Moor-street, Soho.

Specific gravity 918. *Alkalinity* equal to 2·70 grs. per cent. of the neutral carbonate, but consisting really of 75·100ths of a grain of *that carbonate* and 76·100ths of a grain of *caustic ammonia*.

Sample 11*th*.

Purchased of—Mr. Saxby, 11, Tothill street, Westminster.

Specific gravity 917·5. *Alkalinity* equal to 2·90 grs. of the neutral carbonate, but made up really of 1·05 grs. per cent. of *that carbonate* and 72-100ths of *caustic ammonia*.

Sample 12*th*.

Purchased of—Mr. T. Binge, 76, York-street, Westminster.

Specific gravity 933·3. *Alkalinity* equal to 4·10 grs. per cent. of the neutral carbonate, but made up of 2·73 grs. of *that carbonate* and 53-100ths of a grain of *caustic ammonia*.

Sample 13*th*.

Purchased of—Messrs. Parsons and Wade, 98, York-street, Westminster.

Specific gravity 928·7. *Alkalinity* equal to 4·80 grs. of the neutral carbonate, but made up of 4·37 grs. of *that carbonate* and 16-100ths of a grain of *caustic ammonia*.

Sample 14*th*.

Purchased of—Mr. George Elson, 2, Marsham-street, Westminster.

Specific gravity 883·0. *Alkalinity* equal to 1·70 grs. per cent. of the neutral carbonate, but consisting really of only 21-100ths of a grain of *that carbonate* and 88-100ths of *caustic ammonia*. Smell disagreeable.

Sample 15*th*.

Purchased of—Mr. H. Hick, 2, Broadway, Westminster.

Specific gravity 917·5. *Alkalinity* equal to 2·70 grs. per cent. of the neutral carbonate, but consisting really of 69-100ths of a grain of *that carbonate* and 78-100ths of *caustic ammonia*.

Sample 16*th*.

Purchased of—Mr. Good, 47, Minories.

Specific gravity 920·0. *Alkalinity* equal to 5·00 grs. per cent. of the neutral carbonate, but consisting actually of 2·73 grs. of *that carbonate* and 88-100ths of *caustic ammonia*.

Sample 17*th*.

Purchased of—Messrs. Whinfield Hora and Co., 58, Minories.

Specific gravity 927·2. *Alkalinity* equal to 4·25 grs. per cent. of the neutral carbonate, but made up of 27-100ths of a grain of *that carbonate* and 1·51 grs. of *caustic ammonia*.

Sample 18*th*.

Purchased of—Mr. Henry Metzler, 98, Minories.

Specific gravity 860·0. *Alkalinity* equal to 1·70 grs. per cent. of the neutral carbonate, but made up really of 16-100ths of a grain of *that carbonate* and 60-100ths of *caustic ammonia*.

Sample 19*th*.

Purchased of—Mr. Young, Minories.

Specific gravity 922·4. *Alkalinity* equal to 2·90 grs. per cent. of the neutral carbonate, but consisting of 95-100ths of a grain of *that carbonate* and 76-100ths of *caustic ammonia*.

Sample 20*th*.

Purchased of—Mr. Fentiman, 4, Upper East Smithfield.

Labeled "Compound Spirit of Ammonia." *Specific gravity* 1013·3. Does not contain a trace of spirit or of flavouring matter. *Alkalinity* equal to 5·40 grs. of the neutral carbonate, but made up really of the ordinary *sesquicarbonate*.

Sample 21*st*.

Purchased of—Mr. Ringrose, 123, St. George-street East.

Specific gravity 891·0. *Alkalinity* equal to 5·20 grs. per cent. of the neutral carbonate, but consisting of 1·92 grs. of *that carbonate* and 1·28 grs. of *caustic ammonia*.

Sample 22*nd*.

Purchased of—S. Foulger and Son, 133, St. George-street East.

Specific gravity 927·3. *Alkalinity* equal to 3·90 grs. per cent. of the neutral carbonate, but made up really of 65-100ths of *that carbonate* and 1·27 grs. of *caustic ammonia*.

Sample 23*rd*.

Purchased of—Mr. J. T. Croucher, 223, High-street, Shadwell.

Specific gravity 909·0. Prepared with *methylated spirit*. *Alkalinity* equal to 4·00 grs. of the neutral carbonate, but made up of 2·01 grs. of *that carbonate* and 74-100ths of *caustic ammonia*.

Sample 24*th*.

Purchased of—Mr. G. Crutcher, 226, High-street, Shadwell.

Specific gravity 887·5. Prepared with *methylated spirit*. *Alkalinity* equal to 1·0 gr. of the neutral carbonate, but consisting of 31-100ths of a grain of *that carbonate* and 27-100ths of *caustic ammonia*.

Sample 25*th*.

Purchased of—Mr. Brooks, King David-lane, Back-road, Shadwell.

Specific gravity 921·0. Prepared with *methylated spirit*. *Alkalinity* equal to 7·30 grs. of the neutral carbonate, but made up really of 39-100ths of a grain of *that carbonate* and 2·70 grs. of *caustic ammonia*.

Sample 26*th*.

Purchased of—Mr. C. J. Dyke, 12, Northumberland-place, Commercial road.

Specific gravity 913·8. *Alkalinity* equal to 4·20 grs. of the neutral carbonate, but made up of 2·01 grs. of *that carbonate* and 85 100ths of a grain of *caustic ammonia*.

Sample 27*th*.

Purchased of—Mr. W. Clarke, 2, Hereford-place, Commercial-road.

Specific gravity 916·0. *Alkalinity* equal to 4·60 grs. of the neutral carbonate, but made up of 49-100ths of a grain of *that carbonate* and 1·60 grs. of *caustic ammonia*.

Sample 28*th*.

Purchased of—Mr. H. Kay, Upton-place, Commercial-road.

Specific gravity 924·6. *Alkalinity* equal to 3·50 grs. of the neutral carbonate, but consisting of 1·46 grs. of *that carbonate* and 80-100ths of a grain of *caustic ammonia*.

Sample 29*th*.

Purchased of—Dr. Garrett, 4, Colet-place, Commercial-road.

Specific gravity 925·8. *Alkalinity* equal to 4·00 grs. per cent. of the neutral carbonate of ammonia, but consisting of 19 100ths of a grain of *that carbonate* and 1·49 grs. of *caustic ammonia*.

Sample 30*th*.

Purchased of—Dr. Belcher, 3, New-road, near Wellclose-square.

Specific gravity 926·6. *Alkalinity* equal to 3·30 grs. per cent. of the neutral carbonate of ammonia, but made up of 1·30 grs. of *that carbonate* and 79-100ths of a grain of *caustic ammonia*.

Sample 31*st*.

Purchased of—Mr. J. Loane, 1, Dock street, near Lemon-street.

Specific gravity 918·9. *Alkalinity* equal to 7·70 grs. per cent. of the neutral carbonate of ammonia, but made up of 4·59 grs. of *that carbonate* and 1·21 grs. of *caustic ammonia*.

Sample 32*nd*.

Purchased of—Mr. J. W. Stirling, 86, High-street, Whitechapel.

Specific gravity 919·6. *Alkalinity* equal to 2·90 grs. per cent. of the neutral carbonate of ammonia, but made up of 27-100ths of a grain of *that carbonate* and 1·02 grs. of *caustic ammonia*.

Sample 33*rd*.

Purchased of—Mr. Comley, 71, High-street, Whitechapel.

Specific gravity 931·0. *Alkalinity* equal to 2·50 grs. per cent. of the neutral carbonate of ammonia, but made up really of 59-100ths of a grain of *that carbonate* and 74 100ths of *caustic ammonia*.

Sample 34*th*.

Purchased of—Mr. Gorton, 144, High-street, Whitechapel.

Specific gravity 920·3. *Alkalinity* equal to 2·60 grs. per cent. of the neutral carbonate of ammonia, but made up of 59-100ths of a grain of *that carbonate* and 78-100ths of a grain of *caustic ammonia*.

The above results are rendered more obvious by the arrangement of the analyses in the tabular form.

RESULTS OF THE EXAMINATION OF THIRTY-FOUR SAMPLES OF THE AROMATIC SPIRIT OF AMMONIA PURCHASED IN THE METROPOLIS.

No.	Name.	Specific Gravity.	Under Pharmacopœial Weight.	Over Pharmacopœial Weight.	Alkalinity equal to Neutral Carbonate of Ammonia per Cent.	Carbonic Acid per Cent.	Neutral Carbonate per Cent. present.	Free or Caustic Ammonia per Cent. present.	—
1	Corbyn and Co.	916·0	2·0	...	3·10	·27	·53	1·00	
2	Garden and Robbins... ...	890·0	28·0	...	7·90	1·00	1·98	2·31	
3	W. T. Cooper	889·7	28·3	...	7·70	1·88	3·71	1·56	
4	General Apothecaries' Comp.	915·7	2·3	...	3·30	·35	·69	1·02	
5	Godfrey and Cooke	834·8	83·2	...	2·65	·09	·17	·96	
6	Rouse and Co.	890·5	27·5	...	6·80	1·83	3·62	1·24	
7	Mr. Wilcox	897·5	20·5	...	4·80	1·12	2·22	1·00	
8	Lofthouse and Thomas ...	922·2	...	4·2	3·20	·13	·25	1·27	
9	W. P. Roberts	923·0	...	5·0	3·80	·44	·87	1·14	
10	H. Cooper and Co.	918·0	...	...	2·70	·38	·75	·76	
11	Mr. Saxby	917·5	...	...	2·90	·53	1·05	·72	
12	T. Binge	933·3	...	15·0	4·10	1·38	2·73	·53	
13	Parsons and Wade	928·7	...	10·7	4·80	2·21	4·37	·16	
14	G. Elson	883·0	35·0	...	1·70	·11	·21	·58	Smell disagreeable.
15	H. Hick	917·5	...	...	2·70	·35	·69	·78	
16	Mr. Good	920·0	...	...	5·00	1·38	2·73	·88	
17	Whinfield Hora and Co. ...	927·2	...	9·2	4·25	·14	·27	1·51	
18	H. Metzler	860·0	58·0	...	1·70	·08	·16	·60	
19	Mr. Young...	922·4	...	4·0	2·90	·48	·95	·76	
20	Mr. Fentiman	1013·3	...	95·3	5·40	2·85	...	...	Consists of sesquicarbonate of ammonia dissolved in water, and does not contain alcohol or aromatics.
21	Mr. Ringrose	891·0	27·0	...	5·20	·97	1·92	1·28	
22	Foulger and Son	927·3	...	9·3	3·90	·38	·65	1·27	
23	J. T. Croucher	909·0	9·0	...	4·00	1·02	2·01	·74	Prepared with methylated spirit.
24	G. Crutcher	887·5	30·5	...	1·00	·16	·31	·27	Ditto ditto.
25	Mr. Brooks...	921·3	...	...	7·30	·20	·39	2·70	Ditto ditto.
26	C. J. Dyke...	913·8	4·0	...	4·20	1·02	2·01	·85	
27	W. Clarke	916·0	2·0	...	4·60	·25	·49	1·60	
28	H. Kay	924·6	...	6·6	3·10	·74	1·46	·80	
29	Dr. Garrett...	925·8	...	7·8	4·00	·10	·19	1·49	
30	Dr. Belcher...	926·6	...	8·6	3·30	·66	1·30	·79	
31	J. Loane	918·9	...	...	7·70	2·32	4·59	1·21	
32	J. W. Stirling	919·6	...	...	2·90	·14	·27	1·02	
33	Mr. Comley	931·0	...	13·0	2·50	·30	·59	·74	
34	Mr. Gorton...	920·3	...	...	2·60	·30	·59	·78	

These results are in several respects very remarkable.

1st. It appears that the strength, so far as relates to the ammonia present, of the several samples varies immensely, ranging between 1 and 8; that is to say, that one ounce or two tablespoonfuls of the weakest preparation included in our analyses is not more potent than one drachm or one teaspoonful of the strongest. This variation affects the spirit as well as the ammonia. The specific gravity of the spirit varies between 834 and 933—that is, it is frequently much below and often above the density prescribed by the Pharmacopœia; while the alkalinity ranges between 1 grain and 7·9 grains of the neutral carbonate per cent.

2nd. One only of the samples analyzed was free, or nearly so, from caustic ammonia; the whole of the others contained either variable quantities of the carbonate and the caustic alkali together, or else consisted merely of the latter, with little more than traces of carbonic acid. The carbonic acid in the various samples ranged between 00·8 and 2·32 grains per cent., and the caustic ammonia between 01·6 and 2·70 grains.

3rd. Several of the samples were made with *methylated spirit*.

4th. The flavouring ingredients varied, both in kind and degree, as much as the other constituents: thus in some rosemary, in many nutmeg and cinnamon, were detected; while in no instance was the odour of cloves perceived.

It is thus obvious that aromatic spirit of ammonia—an article of the materia medica in constant use both by the profession and the public—is rarely made in accordance with the formula prescribed by the Pharmacopœia. It appears as though each maker had his own formula. Now, if this be so, of what utility is the Pharmacopœia? If its requirements be thus openly set at defiance, what in practice avails our knowledge of the doses of remedies and their effects, corresponding to certain fixed doses and quantities?

Pharmaceutists frequently tell us that they keep two preparations of this and certain other remedies; that in their prescriptions they employ the Pharmacopœial form, but supply the general public with the other article. This is a most dangerous proceeding, since it is calculated to occasion mistakes. Again, why should aromatic spirit of ammonia, as contained in a prescription, differ from that sold in a separate form? This argument applies with much greater force in the case of some other preparations.

There is no doubt, however, that in this particular article the manufacturers have some excuse in the unsatisfactory nature of the process given in the Pharmacopœia. Thus the spirit ordered is so weak that it will not take up a sufficient quantity of the carbonate of ammonia, and the cloves, it is stated, cause it to become, when kept for any time, of a dark colour. Still this does not excuse so many and such great deviation from the Pharmacopœial process.

When caustic ammonia and essential oils are employed, the distillation is avoided altogether, and time is saved and loss of material obviated.

The forthcoming Pharmacopœia will, we understand, contain a new process for the preparation of this article, and of which the following is, we believe, an outline. Sesquicarbonate of ammonia, ammonia, and the essential oils are added to a much stronger spirit than that now employed, and the whole well mixed. The free ammonia combines with the excess of carbonic acid of the sesquicarbonate, and the whole is reduced to the state of neutral carbonate. It is obvious that great care must

be taken not to add an excess of ammonia, or, like many of the preparations we have analyzed, it will contain caustic ammonia. We have had the opportunity of analyzing a sample of aromatic spirit of ammonia prepared in accordance with the above formula. It had a specific gravity of 877·5, its total alkalinity was equal to 6·30 grs. per cent. of the neutral carbonate, but the actual alkalinity was made up of 2·43 grs. of that carbonate and 1·51 grs. of caustic ammonia.

We believe that we cannot more appropriately conclude this report than by quoting a few passages from the Order in Council of her Majesty, forming the preface to the London Pharmacopœia of 1851.

The President of the College of Physicians having set forth that the College had, "with great care, pains, and industry, revised, corrected, and re-formed a book by them formerly published, intituled Pharmacopœia Collegii Regalis Medicorum Londinensis, prescribing and directing the manner of preparing all sorts of medicines therein contained, together with the true weights and measures by which they ought to be made, which book is now perfected and ready to be published, and it is conceived will contribute to the public good of her Majesty's subjects, by preventing all deceits, differences, and uncertainties in making or compounding of medicines, if for the future the manner and form prescribed therein should be practised by apothecaries and others in their compositions of medicine;—the memorialist therefore most humbly prays that her Majesty will be graciously pleased to enforce the observance thereof in such manner as to her Majesty shall seem meet." ..... And "her Majesty does therefore strictly require, charge, and command all and singular apothecaries and others whose business it is to compound medicines, or distil oils or waters, or make other extracts, within any part of her Majesty's kingdom of Great Britain called England, dominion of Wales, or town of Berwick-upon-Tweed, that they and every of them, immediately after the said Pharmacopœia shall be printed and published, do not compound or make any medicine or medicinal receipt or prescription, or distil any oils or waters, or make other extracts that are or shall be in the London Pharmacopœia, *in any other manner or form* than is or shall be directed, prescribed, and set down by the said book, and according to the weights and measures that are or shall be therein limited, except it shall be by the special direction or prescription of some learned physician in that behalf; and her Majesty doth hereby declare the offenders to the contrary shall not only incur her Majesty's just displeasure, but be proceeded against for such their contempt and offence according to the utmost severity of the law."

SYMM *V.* FRASER AND ANDREWS.

DRS. FRASER and ANDREWS will sustain a considerable pecuniary loss by the persecution to which they have been subjected for the faithful and honest performance of responsible professional duties. They have been dragged before a court of law, and exposed to the most serious anxiety, loss of time and money. They were vindicated by the jury, righteously and ably charged as it was by the Lord Chief Justice, to whom the profession and the public are alike indebted for that admirable commentary on their mutual duties and relations. But they still remain grievous sufferers: it is for the profession, and not less so for the public, to assist in relieving them of a part of this burden by subscription. Some of the foremost members of the profession of the metropolis have at once signified their assent to this proposition, and have authorized us to announce their donations as appended. We trust that this movement will be taken up generally, for the burden is one which should not fall upon a few shoulders only. But we would also hope that the subscriptions will not be confined to the members of our profession. The interests of the general public are deeply concerned in this exculpation of the conduct of the medical practitioner who conscientiously assumes a needful responsibility in treating cases of sudden and violent mania, which if he were cowardly to desert, all patients would suffer, although the doctor might not. We should willingly see some effort also made to bring to justice the incitors to this kind of persecution.

We trust that in this instance the public journals, which have expressed much sympathy with Drs. Andrews and Fraser, will aid this subscription, by making known that a list is opened at THE LANCET office:—

	£	s.	d.
THE LANCET	5	5	0
Dr. Forbes Winslow	5	5	0
William Fergusson, Esq.	5	5	0
Ernest Hart, Esq.	5	5	0
Sir Ranald Martin	2	2	0
Dr. C. J. B. Williams	2	2	0
J. Erichsen, Esq.	2	2	0
Dr. Sibson	2	2	0
Dr. J. W. Ogle	2	2	0
John Savory, Esq.	2	2	0
W. White Cooper, Esq.	1	1	0
Dr. Murchison	1	1	0
Dr. C. B. Radcliffe	1	1	0
Henry Thompson, Esq.	1	1	0
J. F. Clarke, Esq.	1	1	0
Dr. Gueneau de Mussy	1	1	0
William Acton, Esq.	1	1	0
Dr. G. Johnson	1	1	0
Dr. Hall Davis	1	1	0
Dr. Hare	1	1	0
J. T. Clover, Esq.	1	1	0

Correspondence.

"Audi alteram partem."

ON THE

EFFICACY OF SARRACENIA PURPUREA IN ARRESTING THE PROGRESS OF SMALL-POX.

To the Editor of THE LANCET.

SIR,—The many conflicting accounts that have lately been published relative to the Sarracenia purpurea in small-pox have appeared to be so much at variance with what has resulted from the use of the remedy in my practice that I am induced to place on record the result of my experience with it. It will afford no advantage to give a detailed account of the numerous cases I have attended since December last, for the unmistakeable evidence of the action of the remedy has been so conspicuously manifest in all, that a general statement will suffice.

The following is the formula employed:—Two ounces of the sliced root; three pints of water, boiled, in a closely covered vessel, down to two pints, and strained. The first case was a little girl, six years of age. She was seen on the third day of eruption, of primary small-pox, and immediately began to take the decoction—four ounces per diem in divided doses; and in less than twenty-four hours the mother reported "she had been better ever since she began to take the medicine." The eruption was very extensive, pustules large, and in some places confluent. The case advanced apparently without interruption until the seventh day, when the pustules began to shrivel, and on the eleventh day the desiccated scales had nearly all fallen off; no pitting; patient convalescent. Every succeeding case was treated in the same manner and with the same success. Only two cases perished: one an infant three weeks old, who took it from its mother; the other an adult female, who seemed to sink from pyæmia on the third day of the eruption.

One remarkable fact, however, deserves to be recorded. A poor woman brought her child, a year and a half old, to my surgery one night at eleven o'clock, with the eruption of small-pox, which had on that day made its first appearance. I gave her the decoction, with directions to give a dessert-spoonful four times a day. On the fourth and eighth days her visits were repeated, each time speaking in laudatory terms of the efficacy of the medicine. On the eleventh day of the eruption she made her last visit, making at the same time the following pertinent remarks: "I have called to thank you, sir, for your great kindness. My child is now quite well, all the scabs have fallen off, and the skin has not a blemish on it. That medicine must be very valuable, sir; for a little girl, the daughter of one of my lodgers, caught the small-pox three days before mine

did, and it has not changed a bit; the pock is all over the body yet in great mattery heads, and here is my child with her skin nearly as clean as when she was born." I was somewhat incredulous as to this perfect clearance of the skin; but in half an hour she brought the child for my inspection, and the appearance fully corroborated all she had said. She had not been vaccinated.

The decoction requires to be carefully prepared: the root should be thinly sliced, and boiled in a closely covered vessel, and for adults the quantity of the root should be increased to three or four ounces to the three pints of water, and about eight ounces administered in the twenty-four hours in four doses. It agrees well with the stomach, possesses eliminative properties, being decidedly diuretic, and generally maintains a daily action on the bowels. In a few cases, while under the influence of the remedy, the eruption assumed a papulous character, and terminated in the usual way by desiccation. There is another specimen of the drug in the market, which is composed almost entirely of the pitcher-formed leaves; this is greatly inferior to the root, in fact is almost inert, and in my opinion deserves to be discarded.

Apropos of external applications for the prevention of pitting, I have not found anything to answer better than the old-fashioned tripe-water, prepared by boiling fat tripe in water, straining the liquor, and applying it warm as a lotion or a fomentation to the face several times a day; it affords great relief to the distended pustules, which by their backward pressure play an important part in the production of pitting.

I remain, Sir, your obedient servant,

J. TAYLOR, L.R.C.P. Edin., L.S.A. Lond.

Old Kent-road, Oct. 1863.

AN APOLOGY.

To the Editor of THE LANCET.

SIR,—In justice to Dr. Gross, of Philadelphia, whom I have unintentionally wronged, I must beg space for the insertion of this letter.

Dr. Gross has written to me complaining that in a note appended to my third lecture "On Hip-Disease" (THE LANCET, Oct. 17th, 1863) I had accused him of appropriating some woodcuts from my published works without acknowledgment, and the eminent author points out that in his preface my name is included amongst a list of surgeons to whom he is indebted for a certain number of his illustrations.

The statement of Dr. Gross is perfectly correct, and I have done him a great injustice. The fact is that I had the second volume of his valuable and laborious work in my possession, but not the first. Finding many of my woodcuts used, and no acknowledgment appended, I concluded these illustrations were not acknowledged, and it did not occur to me to look for my name in the preface. In this I was wrong; and I beg to state that Dr. Gross has made all due and necessary avowal of the borrowed woodcuts. I trust that he will pardon the error into which I very unwittingly fell, and which I now most willingly retract.

I am, Sir, your obedient servant,

Old Burlington-street, Dec. 1863. R. BARWELL, F.R.C.S.

UNIVERSITY OF CAMBRIDGE.

PRINCIPLES AND PRACTICE OF SURGERY.

November 23rd, 1863.

1. EXPLAIN the different modes in which mortification of a limb may be induced, and state under what circumstances you would recommend amputation.

2. What are the microscopical characters of pus cells? Wherein do they differ from those of cancer cells? How are pus cells probably formed? What are the indications of acute suppuration deep in a limb, the thigh for instance?

3. Give a description of the aspect presented by a case of glaucoma when fully developed, what ophthalmoscopic appearances have been observed in glaucoma, and what treatment adopted.

4. How are calculi formed in the urinary organs? What are the symptoms of stone in the bladder?

5. What are the symptoms and treatment of wounds in the chest implicating the lung?

6. In what parts of the clavicle and tibia is fracture most frequent, and why is it so? In what direction does the displacement at the fracture usually take place, and the reason for this?

7. State the process of formation and the diagnostic symptoms of a popliteal aneurism. What accidents may follow after the ligature of an artery for aneurism, and upon what principle does compression effect a cure?

8. What position does the limb usually assume in inflammation of the hip-joint? In what position would you place it to give relief, and on what principle? What symptoms indicate that ulceration of the cartilages is taking place?

9. Mention the modes of treatment which have been recommended for asphyxia from drowning.

10. The symptoms and treatment of fracture of the neck of the thigh bone. The causes of the frequent failure of bony union. What changes take place at and about the fracture?

11. Explain the chief causes of retention of urine in the male and female, and state the treatment required in each case.

12. What symptoms would lead you to suspect the existence of cancer of the rectum?

EXAMINATION FOR THE DEGREE OF MASTER IN SURGERY.

November 24th, 1863.

PRACTICAL AND SURGICAL ANATOMY.

1. What are the position and the connexions of the superficial veins in front of the arm? On which of them is venesection usually performed? With what possible danger to the brachial artery? What superficial nerves may be divided according to the vein selected? How is the vein, usually selected, separated from the brachial artery? Since a high division of the brachial artery may occur with a superficial course, what precaution is always to be taken by the operator?

2. How are the arteries of the forearm distributed to the hand and fingers? What is the practice when a deep wound in the palm is accompanied by much hæmorrhage? If the vessel that bleeds be discovered, how ought it to be tied? What other means to control the hæmorrhage may be employed?

3. By attending to what superficial marks is the course of the femoral artery understood? When the artery and vein have passed under Poupart's ligament, by what structures and fasciæ are they covered? How are the femoral sheath and femoral canal formed? Where does the saphæna vein fall into the femoral? What is the relative position of the artery and vein within the sheath at its upper part? When it has been crossed by the sartorius muscle, how do the relations of the artery differ?

4. In what different conditions may inguinal hernia exist? Define the direct and the oblique hernia. What is the guide to the internal border of the internal ring? How are the epigastric artery and cord generally placed when a protruded viscus is passing through the ring? How is the inguinal canal formed?

5. What are the three stages of the subclavian artery? At what point does it end in the axillary artery? How do the relations of the artery differ on the left side and on the right? How does the subclavian vein correspond to the artery? What nerves are interposed between them?

MIDWIFERY.

November 23rd, 1863.

1. Mention some of the cases demanding the induction of premature labour, and the chief methods of inducing it.

2. What are the indications of extra-uterine pregnancy? In what parts is the fœtus likely to be lodged?

3. Give the symptoms of rupture of the uterus.

4. How is hæmorrhage prevented in natural labour? What precautions would you take in attending a patient in labour who on former occasions had suffered from flooding?

5. What are the symptoms and treatment of puerperal peritonitis, and what the morbid appearances observed after death?

6. What changes in the breasts are indicative of pregnancy?

7. What is the condition of the fœtus at the sixth month?

There was, in addition, an examination, *viva voce*, in each subject. That in Anatomy and Pathology was held at the Anatomical School; and that in Clinical Surgery at Addenbrooke's Hospital, the candidates being requested to examine and report upon selected cases which they had not before seen.

The following gentlemen passed:—

E. Bird, M.D., Caius College.
A. Graham, M.A., St. Peter's College.
A. Wilks, M.A., Trinity College.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

THE Edinburgh Obstetrical Society held the first meeting of of its twenty-third session on the 25th ultimo. The first paper was by Professor Simpson, "On Carcinoma of the Body and Fundus of the Uterus," in which he showed that carcinoma of that organ may occur independently of the cervix. The other papers were "Notes on Two Cases of Induction of Premature Labour," by Dr. Moir; "A Case of Sudden Death during Labour," by Dr. William Ziegler; and "Notes of an Unusual Case of Complicated Labour," communicated by Dr. Burton, of Walsall.

The election of office-bearers of the Medico-Chirurgical Society takes place on Wednesday evening, the 2nd inst. The Council of the Society, who prepare a list of office-bearers which is submitted to the members before the election, recommend that Dr. Douglas Maclagan, F.R.C.S. and F.R.S. Edin., be elected President. The nomination of Dr. Maclagan must be very satisfactory to the members. Dr. Maclagan was for many years lecturer on Materia Medica in the Medical School, and on the death of Dr. Traill was appointed Professor of Medical Jurisprudence. If Dr. Maclagan be elected he will make the fifth president consecutively selected from amongst the chirurgical members. This must be a very pleasing compliment to the College of Surgeons. It would seem that of late years the Fellows of that College have been preferred for filling the chair in this Society. In 1844 the president elected was a Fellow of the Surgical College, and, including the president nominated for 1863-64, ten other presidents have been since elected, eight of whom belonged to the College of Surgeons, and three to the College of Physicians. The proportion of three to eight is certainly remarkable in a medico-chirurgical body.

Your correspondent had an opportunity lately of seeing the Hall of the College of Physicians, which has recently been ornamented with a number of portraits. Amongst others, that of Dr. Robert Whytt, Professor of Medicine in the University of Edinburgh, from 1747 to 1766, commands attention. An admirable memoir of Dr. Whytt's life and writings was submitted to the Royal Society of this city in 1862 by Dr. Wm. Seller, a Fellow of this College. A portrait of Dr. Cullen has also been lately presented by Mrs. Marjoribanks, a descendant of that great physician. It is an excellent copy of an original picture by Raeburn.

Amongst the names of medical members of the Town Council that of Dr. John Cochrane was omitted. He has been a councillor for some time, and is a useful member. This gives four medical voters in the municipal body.

In his last letter your correspondent alluded to the Medical Students' Societies. The Royal Medical has now existed for 127 years, and continues to show undiminished vigour, as may be seen from the names of its lately elected presidents, Drs. David I. Simpson, William Rutherford, Montgomerie Bell, and Thomas Annandale, all of whom are University graduates.

The public mind has been not a little disturbed by the fear of an increasing number of deaths from diphtheria. From the Report of the Medical Officer of Health for the week ending November 28th, it appears that seven deaths were registered from that cause; but of these Dr. Littlejohn remarks that "three are not satisfactorily recorded." It is to be regretted that in the ordinary notice of a death in the daily papers the cause is stated, for it tends to alarm the public without resulting in any good.

Edinburgh, Dec. 2nd, 1863.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

FEVER continues to prevail to a considerable extent in this town. The medical officer of health, Dr. Trench, reports 37 deaths by typhus (registered fever, typhoid, gastric, and typhus) for the week ending Nov. 21st, being 23 above the average. The total number of deaths is 282, being 7 less than in the corresponding week of 1862, though 23 above the corrected average of the last ten years. Sixteen of these deaths occurred in the workhouse, the fever patients having all been taken there from different parts. No one district has been specially affected, but every quarter of the town and outtownships, Everton, Kirkdale, and West Derby, have contributed to make up the number. These facts seem to point to atmospheric influences having more to do with the prevalence of fever than the sanitary conditions of any locality; particularly as it has not been confined to the lower orders, but seems to have attacked in almost an equal proportion the middle classes—those living in well-ventilated houses and tolerably wide streets. The great quantity of rain that has fallen since the beginning of September, together with the temperature of the air, the mean of which has rarely been below 50°, a much higher average than usual for November, are causes in a large town to seriously affect the health of its inhabitants. When fever prevails, a variety of causes may be at work to originate and to extend it; and it is important to distinguish between the two, because, whilst often it may be impossible to prevent the occurrence of it, it may be easy to check its progress. It will be found that the majority of the cases at the present time have been isolated ones, occurring here and there, and not spreading through one house, or court, or alley, or street, nearly to the extent that former epidemics have done. In the thousand lodging houses on the registry of the borough there has only been one fatal case of fever.

The activity of the municipal authorities in improving the sanitary condition of the town is shown by a perusal of some of the clauses of an Act for which application is about to be made to Parliament in the ensuing session: "To make provision for the improvment or removal of houses or buildings situate in or abutting upon, or at the entrance of courts and alleys, which, from the want of proper ventilation or drainage, or any other convenience, are injurious to the health of the inhabitants thereof. To make provision for the width and regulation of future courts and alleys; also with respect to the flagging, channelling, and keeping in good repair the same."

For many years the Health Committee have been at work steadily improving the condition of the town—shutting up cellars, widening streets, and removing nuisances of various sorts; so that Liverpool, which was at one time called the most unheal hy town in the kingdom, can now claim to be one of the healthiest.

In my last letter I alluded to a case of hydrophobia related at one of the meetings of the Medical Institution; the discussion on this subject was continued at the next meeting, and led to the appointment of a committee, for the purpose of conferring with some of the leading veterinary surgeons, and eliciting their opinions and the results of their experience of hydrophobia in the lower animals, and to obtain the attendance of some of them at a special meeting of the Society, when the subject would be further discussed.

At the last meeting of the same Society, an interesting case of Disease of the Supra-Renal Capsules was related by Dr. Imlach, in which the patient, a lady, exhibited during life no marked symptoms except the peculiar bronzed colour of the skin and anæmia, with occasional sickness. The autopsy revealed the supra-renal capsules enlarged, filled with a cheese-like substance, and one of them containing a small quantity of pus. In the discussion that followed, some of the members doubted whether the peculiar colour of the skin could be considered as diagnostic of the disease, as suggested by Dr. Addison. Two cases were mentioned where both symptoms were present in a marked degree. The patients were carefully watched, and from the absence of all other symptoms, disease of the supra-renal capsules was suspected; but no such thing was found after death.

The difficulty of diagnosing ovarian disease has been illustrated in some cases that have recently occurred here. In one, a fibrous tumour of the uterus was discovered at the operation instead of an ovarian cyst. In another, which was not operated on because the uterus was considered to be involved, the autopsy revealed an ovarian multilocular tumour, involving only the right ovary, with a perfectly free pedicle, and only some slight adhesions, and, therefore, a case in which, in its earlier stage, an operation might have proved successful. Both these cases were seen and examined several times by men of large experience in the treatment of ovarian disease. They bear out the observation of your Dublin correspondent, that the most formidable obstacle in the way of operating is the difficulty, if not impossibility, of making out correctly the nature, attachments, and conditions of the tumour.

Liverpool, December 1st, 1863.

GOREY FEVER HOSPITAL.—It is intended to erect a new Fever Hospital at Gorey, County Wexford.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 26th ult.:—

Everitt, Herbert, University College.
Forde, William Bentley, Queenstown, Ireland.
Miller, Richard May, New College Hospital, Barnstaple.
Milner, James Forman, Hull.
Seabrook, William Milward, Old Steine, Brighton.
Ward, Cornelius Harrison, Tollerton, Nottingham.

The following gentlemen also on the same day passed their first examination:—

Adams, Arthur Bayley, London Hospital.
Child, Edwin, Charing-cross Hospital.
Collier, Thomas, Guy's Hospital.
Earle, Robert Charles, Guy's Hospital.
Lower, Nynian H., Guy's Hospital.
Wallis, Albert James, St. Bartholomew's Hospital.
Waymouth, Albert, Middlesex Hospital.
Williams, William Griffith, King's College Hospital.

CAMBRIDGE UNIVERSITY, DEC. 1ST.—At the Second M.B. Examination the following gentlemen were examined and approved:—

Walter Balls, B.A.
George William Seward, M.A.

UNIVERSITY COLLEGE HOSPITAL.—John Hilbert, Esq., of Brawick Hall, has given a further donation of £100 to the University College Hospital, which makes £1000 altogether given by that gentleman to the institution.

TESTIMONIAL.—Dr. John Strang, the author of "Glasgow and its Clubs," has received from his fellow-citizens a service of plate worth 200 guineas accompanied with a purse of £4300.

THE REMOVAL OF BETHLEHEM.—One of the chief subjects of the inquiry now going on by the Commissioners of Charities will be the desirability of the removal of Bethlehem Hospital.

JURYMEN AND SMALL-POX.—A jury at Canterbury lately objected to view the body of a prisoner who had died of small-pox. They were induced, however, to comply with the law by a threat of adjournment and fine on the part of the coroner.

IMPORTANCE OF POST-MORTEM EXAMINATIONS.—On Tuesday last an inquest was held by Mr. Bedford on the body of John Keehan, a labourer, who had fallen from a scaffold on which he was at work. The scaffolding was perfectly secure, and it was difficult to account for his fall, but on a post-mortem examination by Dr. Bainbridge, of St. Martin's-lane, it appeared that the cause of death was apoplexy.

MORTALITY AT WHITEHAVEN.—During the last few months Whitehaven has been visited with a fearful amount of mortality. Upwards of 1000 deaths have occurred in four months. The provisions of the Public Health Act have been at length applied to the town.

INFANTICIDE is so prevalent in Southampton that the mayor of the town has offered £50 reward to any person who will give evidence that will convict any of the criminals.

THE NORTH WALES COUNTIES LUNATIC ASYLUM AT Denbigh is about to be enlarged by the addition of two wings intended to accommodate 150 patients.

RHEUMATISM IN PARIS.—The medical returns in Paris for the month of October show an extraordinary increase of rheumatism. The hospitals are full of patients suffering from what a few years ago was called an English disease.

REINFORCEMENTS FOR JAPAN.—A reinforcement of about 600 men for land service in Japan is about to embark, with the following efficient medical staff:—Surgeon Knox Ord, M.D., F.L.S., R.N., Sir Gilbert Blane's Gold Medalist; Assistant-Surgeon Angus Robertson, Haslar Hospital; and Assistant-Surgeon Gabriel M. Egles, H.M.S. *Impregnable*.

NYCTALOPIA.—Professor Hind, of Toronto, has published some curious details concerning the nyctalopia, or night-blindness, prevalent among the Montagnais or Nashquapee Indians. The sufferers from this affliction can see perfectly as long as the sun is up, but become nearly or wholly sightless from sunset until dawn. No artificial light is of the least service.

THE ROYAL FAMILY AND THE SICK CHILDREN.—It is gratifying to announce that the Queen has forwarded to the Hospital for Sick Children, Great Ormond-street, a large collection of toys for the use of the little sufferers in that institution. The Princess Helena and Prince Alfred have also sent similar presents.

THE FUTURE SITE OF ST. THOMAS'S HOSPITAL.—At a meeting of the governors of St. Thomas's Hospital, held on Tuesday last, the solicitor reported that the common seals of the Corporation and of the Metropolitan Board of Works had been affixed to the agreement for the purchase and sale of the land at Stangate as the future site of the hospital.

TESTIMONIAL TO A MILITARY SURGEON.—Previous to the departure of the 5th Lancers for service in India, a handsome silver-mounted crystal claret-jug was presented by the non-commissioned officers of that regiment to Dr. Huish, as a testimonial of their esteem and gratitude for his unwearied attention and kindness during the time that he was surgeon in charge. The testimonial was presented by the Senior Staff-Serjeant and a deputation, in a most appropriate and feeling address, which was suitably acknowledged by Dr. Huish.

INFIRMARY PAY PATIENTS.—At a recent meeting of the Ennis Board of Guardians, two patients in the Infirmary, who were unwilling to receive the benefits of the institution without payment, petitioned the Board to fix a weekly charge. On the recommendation of Dr. Callivan the sum of two shillings was decided on.

IRREGULAR PRACTICE AT SUNDERLAND.—Richard Lowes and Thomas Brodie have been committed for trial for obtaining money under false pretences. Lowes represented himself to be a medical practitioner, and, meeting a case which he said was a difficult one, said he would send for his son, a physician at Newcastle, who was a "star" there and could cure everything. He introduced Brodie as his son. The medicine supplied was "nibbit" water for which two guineas was charged, which was reduced to one guinea, and was paid.

ANDERSONIAN MEDICAL SOCIETY, GLASGOW.—At the meeting of this Society held on the 7th ult., Dr. John B. Cowan, Professor of the Practice of Medicine, was elected President; Mr. Donald McRaild, Secretary; Mr. Frank Godfrey, Assistant-Secretary; Mr. J. V. Worthington, Treasurer; Messrs. Samuel Lawson and J. Hill, Librarians; Messrs. Stuart and Taylor, Auditors.

THE ACTION OF OXYGEN ON WINE.—At the last meeting of the Academy of Sciences M. Berthelot showed that ten cubic centimetres of oxygen are sufficient to destroy the bouquet of a litre of wine in a few minutes. Hence the importance of corking bottles carefully. Yet a small quantity of oxygen in a diluted state, as in atmospheric air, does not seem to spoil the bouquet, owing to the presence of carbonic acid in wine. The cause of the loss of bouquet in wine after long keeping appears to be the gradual absorption of oxygen, which affects it as would the addition of a mineral water, such as that of Vichy.

THE LATE ALLAN WEBB, ESQ.—A correspondent, whose knowledge of the Indian service and of the advantages derived by it from the services of the late Mr. Webb, states that he was one of the most distinguished and meritorious medical men that have ever been in India, that he did an immense amount of work, and his opinions and example have moulded the medical practice in India. He was equally great as a surgeon and physician. He has left his mark on the medical literature of the country. The reputation and usefulness of his great work, "The Pathologica Indica," and his illustrated cases with physiological, historical, and practical comments, have been widely acknowledged, and will long continue, for it is replete with research and enriched with valuable information. To the "Indian Annals of Medical Science" he contributed an article on the "Removal of an Osseous Tumour from the Face," and a valuable paper on "Elephantiasis." He also furnished many valuable observations on other subjects, the result of his Indian experience. More recently he published in London a practical little book, "Ready Rules for Operating." His practice was very extensive, chiefly among the native gentry of Calcutta, whose confidence and esteem he completely secured. On this account he declined promotion to a deputy-inspectorship, and was on the eve of retiring from the army when he was struck down at the close of his service, just as future years of honour, rest, and happiness seemed opening before him.

MEDICAL VACANCIES.

Brighton and Hove Lying-in Hospital—Resident House-Surgeon.
Manchester Royal Infirmary—Resident Medical Officer, vice Mr. Day, deceased.
Portsmouth, Portsea, and Gosport Hospital—House-Surgeon.
Royal Sea-Bathing Infirmary, Margate—Resident Surgeon.
Sheffield General Infirmary—Assistant House-Surgeon.
West Kent General Hospital—House-Surgeon and Dispenser.

MEDICAL APPOINTMENTS.

W. W. ALLAN, L.R.C.P.Ed., has been elected Medical Officer and Public Vaccinator for District No. 1 of the Wharfedale Union, Yorkshire, vice G. Gardiner, C.M., resigned.

J. T. ARLIDGE, M.B., late President of the North Staffordshire Medical Society, Stoke-upon-Trent, has become ex-officio Vice-President for 1863-64.

J. CROFT, F.R.C.S., has been appointed Assistant-Surgeon to St. Thomas's Hospital.

J. GRAHAM, M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Barningham District of the Teesdale Union, Durham, vice Mr. M. Graham, resigned.

Dr. J. GRANT has been appointed Medical Superintendent of the Dundee Royal Infirmary, vice Dr. W. G. Hamilton, deceased.

W. S. GRANGER, M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Parish of Owermoigne, in the Weymouth Union, Dorsetshire, vice J. W. Pridham, L.R.C.P.L., resigned.

W. JONES, L.S.A., has been appointed Junior House-Surgeon to the Queen's Hospital, Birmingham, vice T. Thompson, M.R.C.S.E., appointed House-Surgeon.

E. H. OLIVE, M.R.C.S.E., has been elected Medical Officer and Public Vaccinator for District No. 6 of the Brixworth Union, Northamptonshire, vice G. Olive, M.R.C.S.E., deceased.

T. O'NEILL, M.D., has been elected Medical Officer and Public Vaccinator for the Ballyduff Dispensary District of the Lismore Union, Co. Waterford, vice N. O'Donnel Parkes, L.K.Q.C.P.I., resigned.

T. RADFORD, F.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Rishangles District of the Hartismere Union, Suffolk, vice E. R. Lock, M.R.C.S.E., resigned.

W. SELLERS, M.R.C.S.E., has been elected Medical Officer and Public Vaccinator for the Pilkington No. 1 District of the Bury Union, Lancashire, vice R. Preston, M.R.C.S.E., deceased; and also Medical Officer and Public Vaccinator for the Pilkington No. 2 District, vice J. Lancashire, L.R.C.P.Ed., resigned.

J. STEELE, M.D., has been re-appointed Medical Officer for the Parish of Cambusnethan, Lanarkshire.

J. TANNER, M.D., has been elected Surgeon to the Royal South London Dispensary, vice P. Ward, M.R.C.S.E., resigned.

J. TAYLOR, L.F.P. & S. Glas., has been appointed Surgeon to the National Model Schools, Ballieborough, Co. Cavan, vice J. A. Johnstone, L.K.Q.C.P.I., deceased.

F. WILLIAMS, M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the North-hill, or No. 2 divided District, of the Launceston Union, Cornwall, vice H. Pethic, M.D., resigned.

MILITARY AND NAVAL MEDICAL APPOINTMENTS.

W. H. ALDERSEY has been appointed Assist.-Surg. to the 1st Sussex Artillery Volunteer Corps, vice Barker, resigned.

S. AMESBURY, Assist.-Surgeon Bengal Service, has been directed to assume medical charge of the 31st Native Infantry.

S. C. AMESBURY, M.R.C.S.E., Assist.-Surg. Bengal Service, has been posted to the 31st Native Infantry, vice Assist.-Surg. L. H. Lees, M.D., appointed to officiate as Civil Assist.-Surg. at Akyab.

R. ATKINSON, Assist.-Surg. 45th Foot, has been appointed Staff Assist.-Surg., vice Wood, appointed to the 45th Foot.

A. FLEMING, M.D., officiating Civil Surgeon Bengal Service, has been appointed Civil Surgeon of Moorshedabad.

W. F. GOSS, M.D., Civil Assist.-Surg. at Sumbulpore, Bengal, has been invested with the powers of a Magistrate.

W. H. GRIFFIN has been appointed Honorary Assist.-Surg. to the 3rd Oxfordshire Rifle Volunteer Corps, vice Beere, deceased.

H. P. HENSMAN, Staff Assistant-Surgeon doing duty with the Royal Artillery at Agra, has been directed to assume medical charge of the 24th Bengal Native Infantry, vice Surg. J. P. Kelly, proceeded on leave to Europe.

G. F. HOFF, M.D., has been appointed to officiate as Medical Officer of Bancoorah, Bengal.

C. G. IRWIN, M.B., Assist.-Surg. 28th Foot, has been promoted to Staff Surg. in succession to Staff Surg.-Major W. Braybrooke, deceased.

C. JOHNSON, M.R.C.S.E., Surg. attached to the 13th Bengal Native Infantry, has been directed to make over the medical charge of his Corps to Civil Assist.-Surg. H. Cayley, and to take charge of the 4th Native Infantry at Delhi, vice Surg. A. R. Atkinson, absent on leave on medical certificate.

W. JOHNSTON, Assist.-Surgeon R.N. Oct. 15th, 1860, has been appointed to the "Impregnable."

C. KERNAN, Assist.-Surgeon R.N. March 19th, 1855, has been appointed to Haslar Hospital.

A. H. KELLY, L.R.C.S.Ed., Assist.-Surgeon R.N. May 5th, 1856, has been appointed to the "Flagard" (additional).

R. T. LYONS, M.R.C.S.E., Assist.-Surg. attached to the 101st Foot at Bengal, has been appointed to the medical charge of the 30th Native Infantry, vice Surg. J. Squire, transferred to the 16th Native Infantry.

N. K. MARSH has been appointed Assist.-Surgeon to the 1st Administrative Brigade of Lancashire Artillery Volunteers.

J. H. ORR, C.B., M.D., Garrison Surgeon at Bangalore, and Acting Deputy Inspector-General of Hospitals, has been promoted to Deputy Inspector-General of Hospitals, vice M'Kenna, retired.

J. ROSE, Surgeon Bengal Army, having completed twenty years' actual service, has been promoted to Surg.-Major under the provisions of the Royal Warrant of Jan. 13th, 1860.

Staff Assist.-Surg. SMITH, M.D., attached to the 104th Foot at Bengal, has passed the prescribed Colloquial Examination.

T. H. SMITH, Assist.-Surg. 2nd Infantry Hyderabad Contingent, has been appointed to officiate in medical charge of the 4th Cavalry.

F. P. STAPLES, L.K.Q.C.P.I., Assist.-Surg. Bengal Service, has been directed to take medical charge of a Detachment of the 19th Foot at Umritsir, vice Assist.-Surg. C. E. Wikely, appointed to a civil charge.

L. W. STEWART, 1st Class Assist.-Surg. Madras Service, has been promoted to Surgeon, vice M'Kenna, retired.

J. STUART, L.R.C.S.I., Assist.-Surgeon 13th Foot, has been directed to assume medical charge of a Detachment of the Royal Artillery at Berhampore, and afford medical aid to the Staff and other Officers at the Station, vice Assist.-Surg. P. N. Jackson, proceeding to join the Head Quarters of his Regiment.

C. P. WILLIAMS, Assist.-Surg. R.N. Nov. 21st, 1849, has been appointed to the "Cambridge."

J. R. WILLIAMS, Surgeon Royal Artillery at Bengal, has been directed to assume medical charge of the Depôt of the 101st Foot at Rawul-Pindee consequent on the departure of that Regiment for Hazara.

T. WOOD, M.D., Staff Assist.-Surg., has been appointed Surgeon to the 42th Foot, vice Atkinson, appointed to the Staff.

Births, Marriages, and Deaths.

BIRTHS.

On the 10th of Sept., at Singapore, the wife of W. H. S. Burn, Surg.-Major 34th C.L.I., of a son.

On the 3rd ult., at Clarendon-road, Notting-hill, the wife of W. Alban Atwood, M.R.C.S., of a son.

On the 3rd ult., at Kingston, Canada West, the wife of G. E. Gascoyne, M.D., Staff Assist.-Surg., of a son.

On the 16th ult., at Mount-street, Grosvenor-square, the wife of W. Bloxam, jun., M.D., of a son.

On the 22nd ult., at Ashlar Cottage, Buckland, Portsmouth, the wife of Wm. Anderson, Assist.-Surg. R.N., of a daughter.

On the 23rd ult., at South Queensferry, the wife of F. A. Brice, M.D., Assist.-Surg. H.M.'s Ship, "Edinburgh," of a son.

On the 24th ult., at Penzance, the widow of the late R. Q. Couch, M.R.C.S.E., of a daughter.

On the 25th ult., at Gloucester Gardens, Paddington, the wife of A. J. Tapson, M.B., of a daughter.

On the 25th ult., the wife of G. W. Child, M.D., of Oxford, of a daughter.

On the 25th ult., at Upper Berkeley-street, Portman-square, the wife of T. C. W. Cooke, M.R.C.S.E., Surgeon to the Cancer and Royal Free Hospitals, of a daughter.

On the 26th ult., at Swineshead, Lincolnshire, the wife of Conway Hine, M.R.C.S., of a daughter.

On the 26th ult., at Loughborough Villas, Brixton, the wife of R. Burwell, M.R.C.S.E., of a daughter, still-born.

On the 27th ult., at Bath, the wife of J. Fitzpatrick, M.D., late Surgeon Madras Army, of a daughter.

On the 28th ult., at St. Thomas's-street, Southwark, the wife of H. Gervis, M.D., of a son.

On the 28th ult., at Brook-street, Grosvenor-square, the wife of C. J. Hare, M.D., of a son.

On the 28th ult., at Great Grimsby, Lincolnshire, the wife of F. P. Cupin, M.R.C.S.E., of a daughter.

On the 29th ult., at Lansdowne-place, Blackheath, the wife of F. Harris, M.D., of Cavendish-square, of a son.

On the 29th ult., at Dunster, Somersetshire, the wife of C. Roberts, M.R.C.S. Eng., of a son.

On the 30th ult., at Queen-street, Edinburgh, the wife of J. A. Sidey, M.D., of a daughter.

MARRIAGES.

On the 25th ult., at St. John's, Hackney, Henry Stevenson, Esq., of Norwich, to Ann Emilia, eldest daughter of Wm. Self, Surgeon, of Richmond-road, Hackney.

On the 25th ult., C. H. Groves, M.B., of Ballythomas, Co. Cork, to Emily, daughter of R. M'Mullen, Esq., of Dublin.

On the 26th ult., at St. Nicholas, Dublin, Dr. T. Clancy, of Mitchelstown, Co. Cork, to Jane, daughter of the late J. Madden, Esq., of Dublin.

On the 28th ult., at St. Mary's, Jersey, W. J. Symons, M.D., of Trewethern, Cornwall, and St. Helier, Jersey, to Jane Parker, daughter of the late T. Hedley, Esq., of Newcastle-on-Tyne.

On the 29th ult., at St. Barnabas Church, Kensington, Wm. Bruce, M.D., of The Crescent, Kensington, to Charlotte, daughter of Mrs. John Woodruffe, of Richmond-terrace, Bayswater.

DEATHS.

On the 15th of Oct., at Singapore, James Hutchinson, M.D., of H.M.'s Ship "Rifleman," late of Blackrock, Dublin.

On the 21st ult., at Shawbury, Salop, T. Drury, Surgeon, aged 77.

On the 22nd ult., at Rose-hill, Shanakiel, Cork, W. C. Nash, M.D.

On the 25th ult., at Theale, Berks, T. Tomlinson, L.S.A., formerly of Maldon, Essex, aged 64.

On the 25th ult., at Wooler, Northumberland, James Alexander, L.R.C.P.Ed., aged 66.

On the 25th ult., at Aberennig House, Talgarth, Breconshire, Wm. Williams, M.R.C.S.E., aged 58.

On the 26th ult., at Temple-row, Birmingham, E. T. Cox, Hon. Surgeon of the Queen's Hospital, Birmingham, aged 93.

On the 27th ult., at Crowle, Lincolnshire, of scarlatina, Emily Beatrice, youngest daughter of Henry W. T. Ellis, L.R.C.P.Ed., aged 6 years.

On the 28th ult., at King-square, Bridgewater, H. Axford, Surgeon, aged 63.

On the 29th ult., at West George-street, Glasgow, G. Watt, F.F.P. & S. Glas.

On the 29th ult., at Bridge-avenue, Hammersmith, G. H. Beaman, M.R.C.S.E., aged 38.

On the 29th ult., at Charlemont-mall, Dublin, C. E. Bagot, M.D.

BOOKS ETC. RECEIVED.

Dr. Aitken on the Science and Practice of Medicine. Two Vols.
Mr. L. J. Beale on the Stomach.
Mr. A. Gilchrist's Life of Blake. Two Vols.
Watts's Dictionary of Chemistry. Part X.
Mr. Jukes's School Manual of Geology.
Wanderings in West Africa. By a F.R.G.S. Two Vols.
Mr. R. S. Culley's Handbook of Practical Telegraphy.
Art Journal.
J. Edmeston on Town Sewage.

Medical Diary of the Week.

MONDAY, DEC. 7	ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM.—Operations, 1½ P.M. METROPOLITAN FREE HOSPITAL. — Operations, 2 P.M. ROYAL INSTITUTION. — 2 P.M. General Monthly Meeting. EPIDEMIOLOGICAL SOCIETY. — 8 P.M. "On Epidemic Pleuro-Pneumonia and Phthisis in the Mediterranean Fleet." Communicated by Dr. Bryson, R.N., Inspector-General of Hospitals and Fleets. ZOOLOGICAL SOCIETY OF LONDON.—8 P.M. MEDICAL SOCIETY OF LONDON. — 8½ P.M. Lettsomian Lectures on Diseases of Women and Children: "On some Points in the Pathology, Diagnosis, and Treatment of Fibrous Tumours of the Uterus." By C. H. F. Routh, M.D. Lecture III.
TUESDAY, DEC. 8	GUY'S HOSPITAL.—Operations, 1½ P.M. WESTMINSTER HOSPITAL.—Operations, 2 P.M. ETHNOLOGICAL SOCIETY.—8 P.M. "Account of the Weddos, a Wild Tribe of Ceylon." By a Tamil Native of that Island.—"On the Commixture of the Races of Man in the New World as affecting the Progress of Civilization." By Mr. John Crawfurd. ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON.—8 P.M. Ballot. — 8½ P.M. Mr. Moore, "On Popliteal Aneurism." — Mr. Durham, "On the Treatment of Popliteal Aneurism by Flexion of Knee-joint."
WEDNESDAY, DEC. 9	MIDDLESEX HOSPITAL.—Operations, 1 P.M. ST. MARY'S HOSPITAL.—Operations, 1 P.M. UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M.
THURSDAY, DEC. 10	ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. CENTRAL LONDON OPHTHALMIC HOSPITAL — Operations, 1 P.M. LONDON HOSPITAL.—Operations, 1½ P.M. GREAT NORTHERN HOSPITAL, KING'S CROSS.—Operations, 2 P.M. LONDON SURGICAL HOME.—Operations, 2 P.M. WEST LONDON HOSPITAL.—Operations, 2 P.M. ROYAL ORTHOPÆDIC HOSPITAL. — Operations, 2 P.M.
FRIDAY, DEC. 11	WESTMINSTER OPHTHALMIC HOSPITAL. — Operations, 1½ P.M.
SATURDAY, DEC. 12	ST. THOMAS'S HOSPITAL.—Operations, 1 P.M. LOCK HOSPITAL, Dean-street, Soho.—Clinical Demonstrations and Operations, 1 P.M. ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M. KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M. ROYAL FREE HOSPITAL.—Operations, 1½ P.M. CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

To Correspondents.

Chirurgus.—M. Morel-Levallée has introduced surgical instruments, which, with the exception of knife-blades, are made entirely of bronzed aluminium. They are stated to be much cheaper than silver instruments, to be inoxidizable, and to preserve their brilliancy though in daily use. The compound actually employed contains from five to ten per cent. of the new metal, and has the colour and brightness of gold.

A. S. would not have to pass the preliminary examination at the College of Surgeons.

N. S., M.D.—We are acquainted with no such case; but it would be worth trying in the County Court.

Randolph, (Edinburgh.)—The question should be put to any competent surgeon. It would be difficult to give an opinion upon the point without examination.

Dr. Peter Eade's interesting letter "On Primary and Secondary Cancer" shall appear in our next impression.

Taffy.—It is left to the discretion of the Council.

POOR-LAW MEDICAL OFFICERS AND PAUPER LUNACY.

To the Editor of THE LANCET.

SIR,—Your correspondent, "Fairplay" asks our opinion respecting a fee claimed by him for giving a certificate of lunacy.

If "Fairplay's" contract does not distinctly prohibit him from private practice, I feel sure he is not only right in claiming the fee, but he must make the guardians pay within the limited period they hold themselves responsible. (See case of Baker *v.* Guardians of Billericay Union, THE LANCET, 21st November.)

Our contracts do not include giving certificates of lunacy; and if nothing else could prove this, the following fact will do so:—In cases of paupers of unsound mind, who are considered harmless, and therefore are allowed to remain in the care of friends out of an asylum, the union medical officer is bound to visit and report all such quarterly; *for this duty he receives extra fees.*

I am, Sir, yours, &c.,

December, 1863. UNION MEDICAL OFFICER.

A. B.—1. The words of the Act are by no means clear upon the question. We are not acquainted with any case in which a decision has been given by the judges respecting it. We are of opinion, however, that a private practitioner is not bound to send a certificate to the registrar.—2. He is under no penalty for refusing to give the certificate.

T. T.—Statistical inquiries show that the proportion of males to females the world over is nearly equal, it being 106 boys to 100 girls.

THE TITLES OF MEDICAL PRACTITIONERS.

To the Editor of THE LANCET.

SIR,—On the presumption that "A Surgeon" refers to the letter of "Alpha, F.R.C.S.," which appeared in your issue of October 24th, I beg to be permitted to offer one or two remarks on the subject of the communications of these gentlemen, reminding you that you published some months ago a suggestion of mine for the formation of a "One-faculty" Medical College.

For I desire to show that I am in favour of the system, although far from wishing to see the Royal College of Surgeons of England the presiding genius of such an institution. "Alpha" says that the College has *only* to add Medicine and Pharmacy to its curriculum. Is this statement correct? Has it not to add to its examinations and to its curriculum (in the latter by accretion) Medicine and Medical Jurisprudence, Therapeutics and Pharmacy, Chemistry and Botany, Midwifery (for this is not included in its examination for membership), and perhaps other subjects, before it can issue a licence as comprehensive as a University degree, or as the diplomas of the Royal College of Physicians or Apothecaries' Hall? If it would be fair to give to any licensing body a preference, surely the College of Physicians or the Apothecaries' Hall ought to have it; for they have really only one subject to add to their examinations—Surgery.

Note the illiberality of "Alpha." According to him, anyone practising medicine alone must be "an old woman," and he opposes the devotion of a gentleman to the practice of one branch only of his profession; while further on he is in favour of the holder of the degree of Doctor in Surgery—the highest rank in the profession according to him—practising surgery only; at least this is the only view that can be taken, if we judge from his proposed initial nomenclature. Change his surgeon into physician, and we find ourselves just as we stand now. And yet physicians practising one branch of their profession must be "old women;" but "Alpha" does not hint that a similar unsexing process must take place with surgeons practising surgery only. Oh, what an obliquity of moral vision is here!

Let me remind your correspondents that the degrees of Universities and the diplomas of the Colleges of Physicians are, as a rule, sought for by gentlemen who already hold that of the College of Surgeons; and that the "trampling under foot," which "A Surgeon" has already undergone, has not been performed only by "a dozen or two of aristocrats, whose only title to distinction has been their long purse," &c., but by the million itself, and especially by the upper ten thousand. Is he not aware that popular estimation, rightly or wrongly given, is the maintainer of professional as well as of civil status? And is it not weak and childish of him to cry out that he is "trampled upon" by the College of Physicians,—for I presume he refers to that distinguished body,—blaming them for the high estimation in which they are held by the general public? People are quite aware that pneumonia, bronchitis, and colic are more frequent occurrences than contusions, fractures, and dislocations; and it may be, too, that they are aware that the Royal College of Surgeons of England utterly ignores the practice of medicine &c. in its examinations, and that they therefore form the by no means unnatural opinion that the possessors of this diploma only are ignorant of that science, and that they turn their attention to it as soon as they can forget the "cruxes steps" which have filled their brains in their preparations for the College examination. It is on the possession of this knowledge, and partly, possibly, on the assumption of this opinion, together with some information acquired about the examinations of other bodies, that is based the estimation in which we are individually and collectively held by the public; and if the charge against the physician of inability to bleed holds good, equally good must hold a charge against the surgeon, that he is unable to treat a common catarrh. But the imputations are founded upon hypothetical bases. In practice the physician bleeds as well as the surgeon, and the surgeon treats disease with success equal to the physician. But "Alpha" and "A Surgeon" will do well to remember that the opinions of the public—aye, and of the profession too—with regard to the Royal College of Physicians are not to be moved by abuse, nor is the cause they advocate advanced by their calling them "old women"—at the best a very uncivil term, and one from the use of which people *might* deduce the existence of envy, hatred, and all uncharitableness.

If these gentlemen would call the attention of their College and their professional brethren to the numbers of shopkeepers which are gradually being made out of possessors of the diploma of the Royal College of Surgeons, they would be employing themselves more usefully and effectually in maintaining and supporting the dignity of that body. The apothecaries used to be considered the lowest professional rank, because they kept an open surgery or shop. The surgeon is now bidding for the position, and I see it and say it with very great regret. Open surgeries are almost as frequently advertised as practices for disposal. On your last page but one may be seen an advertisement (No. 10) for a M.R.C.S. to take charge of a retail. Is this a position for a member of the College? And should he wear the robes advocated for him in some letters recently published in THE LANCET? Do not these and similar things do more to lower our position than anything done out of our own circle? Let these gentlemen, I say, and let all possessing a College degree, urge that College to keep up its own status by withdrawing its licence from shopkeepers (if they have not the power let them seek it), and they and we, by so doing, will be employed more worthily than we are in discussing the subject in the light of "who shall be greatest."

I am, Sir, faithfully yours,

November, 1863. W. H. CECIL TREVER, M.D.

A Provincial Surgeon, (Sunderland.)—He was not to blame. He should undoubtedly have been called as a witness on the inquest. To the last inquiry, Certainly.

URINARY DEPOSITS ON CATHETERS.

To the Editor of THE LANCET.

SIR,—Can you or any of your readers state the best means of removing the urinary deposit from the inside of the silver catheter? Whether there is any acid that would remove it without acting on the silver, or whether a strong stilette is the only remedy available?

I remain, Sir, yours truly,

November, 1863. A CONSTANT READER.

Lupus.—A sort of gelatinized chloroform application has been recommended. Chloroform, like other, has the property of intimately mixing with albumen, first forming a liniment, and then a light jelly, which is often of much more easy application than the volatile agent which gives rise to it. To make it, our correspondent may shake up in a phial two volumes of white of egg and one volume of chloroform.

IF *Prometheus* will send us his name and address, he shall receive the information he requires.

WE are compelled to postpone until next week the report of the meeting of the Metropolitan Association of Medical Officers of Health, and the Obituary of Staff Surgeon-Major Wm. Braybrooke, M.R.C.S.

DR. CHRISTISON ON THE PUBLIC HEALTH.

To the Editor of THE LANCET.

SIR,—In investigating the causes of scrofula, tabes, consumption, and water in the head, Dr. Christison, in his address on Public Health, has not gone deep enough into the subject. To arrive at a satisfactory result, it is necessary to revert to those causes which precede the actual development of diseases so fatal in their tendency. These for the most part may be traced to morbid conditions of the parents, amongst which excessive tobacco-smoking by the father, and hæmorrhagic, leucorrhœal, and other uterine and vaginal discharges in the mother, are the most frequent. Tuberculosis is often generated in the fœtus during utero-gestation, manifesting itself in infancy by erethism of the brain and convulsions, followed by hydrocephalus, diarrhœa from obstruction in the mesenteric glands, and at or soon after puberty by tubercular phthisis. Of the truth of this causation I have had ample experience.

The prevention of these diseases, therefore, consists not so much in the hygienic management of the patients as in the medical treatment of the parents. Pure air, pure water and milk, sound meat, fresh vegetables and fruit are doubtless essential pre-requisites of health; but these are nearly powerless in preventing the development of tuberculosis. The influence of scientific medical opinion is great, and greatly on the increase. In order to counteract the extension of this diseased condition in the rising generation, by which the energy and strength, the activity and usefulness of the population are impaired, it should be exerted in repressing the habit of excessive tobacco-smoking, especially by youths, and in the cure of leucorrhœa. I have witnessed the death of child after child from this latter cause, and the production of healthy children after the cure of leucorrhœa. It should be a uniform inquiry by those engaged in the practice of midwifery, and by other practitioners, in cases of convulsion and other diseases of the tubercular class, as to the existence of uterine discharges, and to treat them accordingly. Dry diet, dry air, cold sitz bath, a cool regimen, and chalybeates, are amongst the most effectual remedies in these cases.

I am, Sir, yours, &c.,

Montague-street, Nov. 1863. J. PIDDUCK, M.D. Edin.

B. B. N.—It would depend on the wording of the agreement. Usually the prohibition extends to practising within a certain limit. The place of residence has nothing to do with the question. If a patient were attended within the proscribed distance, it would be a legal infringement of the contract.

A. Z.—There is no law to prevent him.

Omega.—The best test for veratria is boiling a cold solution of the suspected matter in concentrated hydrochloric acid. By prolongation of the boiling, the solution gradually acquires a reddish tint, ultimately becoming intensely red, like the permanganate of potash.

THE second part of *Mr. Charles Hunter's* paper "On Hypodermical Treatment of Disease" shall be published next week.

TIC DOULOUREUX.

To the Editor of THE LANCET.

SIR,—It appears that the labours of M. Duchenne, whose name must be familiar to the readers of THE LANCET through the communications of your Paris correspondent, are turned to little practical use in this country. Whilst that eminent physiologist has established the system of "local Faradisation" upon a scientific basis, and popularized its employment amongst our professional brethren on the other side of the Channel, it is to be regretted that with us this valuable therapeutic agent is not better understood.

I was never more painfully impressed with the truth of the above remark than when reading Dr. Harthill's letter in your impression of November 21st. "Medicus" wished to know a remedy for a rebellious case of tic douloureux. To the somewhat vague query, Mr. Chambers (THE LANCET, November 14th) offered a very sensible suggestion—viz., "Examine the patient's mouth, extract old stumps and decayed teeth." It is astonishing the tricks which a carious tooth sometimes plays with the nerves of the face and eyeball! Local galvanism may cure, as by enchantment, any nervous affection, whether rheumatic or hysteric hyperæsthesia; but it will prove useless when the irritation is caused by the presence of a foreign body or by a carious tooth, and worse than useless when the hyperæsthesia is a symptom of inflammation or of organic change in the nervous centre. The hypodermic injection of atropine might prove advantageous.

Now, in the letter in question, Dr. Harthill says—"I am induced to make public for the information of 'Medicus' and that of the profession generally the means which I have employed, and that successfully, for the relief and cure of tic douloureux." He gives us the history of a case of tic of forty years' standing, which had been under the highest physicians at home and abroad, until he (Dr. H.) succeeded at last in curing it *partially!* The profession is further favoured with the information that Dr. H. is no magician, but that his astonishing success is owing to the fact of his employing galvanism by means of Halse's apparatus. N.B. He directs "*a large stream* of fluid to the top of the spine and pit of the stomach. The sensation is soothing and very agreeable, so much so that sleep is frequently induced" (*sic*). I need not take up your valuable space by entering upon an analysis of this precious information, as the letter wants no commentary; but as one good turn deserves another, so I think it right to advise Dr. H. to make himself more familiar with the machinery of that wonderful apparatus, (which "tickles patients to sleep by its large streams of fluid,") before enlightening the profession of its efficacy.

I am, Sir, yours, &c.,

November, 1863. A. B.

A Dyer.—Mauveine is a powerful base discovered by Mr. Perkins, the introducer of the new colour mauve. It is procured by adding a solution of the hydrate of potassium to a boiling solution of commercial mauve. It readily decomposes ammoniacal salts.

THE ACTUAL CAUTERY AS A HÆMOSTATIC.

To the Editor of THE LANCET.

SIR,—Having read the interesting communications in THE LANCET on the "Actual Cautery as a Hæmostatic," a few further remarks may not be out of place.

Like Dr. Arnott, I obtained some valuable hints on the subject from a rural "operator" of great local repute. I carefully observed the sage's method of operating, and imitated it on several occasions with the same good results as attended his performances. His advice and comments were, of course, only obtained after due propitiation. He used a "clamp," (as far as I can make out, a primitive form of Mr. Smith's instrument,) but no powdered resin, or anything of the kind. From my own observations, and from his process and example, I was led to the conclusion that the degree of heat employed was the main thing. To ascertain this, before applying the flat surface of the iron to the divided vessels, the man of skill placed the instrument four or five inches from his cheek. If from this delicate test the heat appeared to be too great, he paused, and rubbed the iron on a stone, and again tested as before. When the amount of heat was exactly right, he applied the instrument with a light, firm hand. To my less refined senses, a dull, black heat appeared to be all that was required, such as should seal up the divided vessels and coagulate their contents, without charring the tissues extensively, as is the result when the cautery is used at a higher temperature.

I cannot help thinking that the degree of heat generally employed is much too high, and that the use of resin powder, &c., is mainly at least a mechanical one, by preventing the direct contact of the too hot instrument, and perhaps also by employing some of its superfluous heat in the fusion and decomposition of the medium.

Yours, &c.,

December, 1863. A SUBSCRIBER.

M. R. M.—It entitles him to prefix "Dr." to his name, as a matter of custom and courtesy. The question of the legal right has never yet been brought to an issue.

A. B.—Torquay or Ventnor.

"THERAPEUTICAL ADVICE GRATIS."

To the Editor of THE LANCET.

SIR,—With regard to the above heading, I think some further notice should be taken of it than the mere question of "What next?" from your correspondent, "Harper's Ghost;" and I am as much at a loss to understand what this signature means as I have as to what "therapeutical advice gratis" is intended to convey to the too credulous public. It appears to me that the true object of this druggist is to lead the community to believe that he is capable of giving medical advice to those who are unfortunately afflicted with disease. This new dodge will, unless nipped in the bud, become general with all the low, half-educated prescribing druggists. Entertaining these views, I should hope that not only will the members of our honourable profession, but every respectable chemist and druggist, as well as the Pharmaceutical Society, denounce in unmistakeable language this snare so cunningly laid to catch those who unwittingly apply for "therapeutical advice gratis;" for it is clear that it is medical advice which this druggist, under the shield and disguise of a word that is somewhat similar in its meaning, has the assurance to place on his door, with the hope of robbing the honest and educated medical man of the bread which he has, at much expense, great study, and anxiety, considered he would be able to gain from having qualified himself by searching examinations as to his proficiency in treating disease honestly, by endeavouring to do justice to himself and his patient, through the knowledge gained in every department of his art. No profession is so beset with every species of quackery and humbug as that of medicine, and it is high time that we made a most determined stand against the innovations which have crept into it; and this "therapeutical advice gratis" is the thin edge of the wedge, which, if not stopped, will be driven home to our prejudice.

I am, Sir, your most obedient servant,

December, 1863. INDIGNANS.

COMMUNICATIONS, LETTERS, &c., have been received from — Mr. Barwell; Mr. H. Thompson; Dr. Russell Reynolds; Dr. Grailly Hewitt; Mr. Brown; Dr. Chalmers Mitchell; Dr. Collins; Mr. D. O. Edwards, Brompton; Mr. Ward; Mr. Atwood; Dr. Serle, Tunbridge; Mr. Ingle, (with enclosure;) Mr. Hine, Swinestead; Dr. Hearne, Southampton; Dr. Lory Marsh, Nottingham; Mr. Turner, Minchinhampton; Mr. S. A. Smith; Mr. R. Davis, Wrekenton; Dr. Ward, Glossop, (with enclosure;) Dr. Head, Carlisle; Mr. O'Brien, Portsmouth; Dr. Pidduck; Mr. Arthur, (with enclosure;) Mr. G. Walker, (with enclosure;) Dr. de Chaumont, Netley; Dr. Eade, Norwich; Dr. Vines; Mr. Pepler, Market Lavington, (with enclosure;) Mr. J. Knill, Nettlebed; Mr. Hobbes, (with enclosure;) Mr. Crofts, Whitchaven, (with enclosure;) Mr. Browning, (with enclosure;) Mr. Blamire, (with enclosure;) Mr. A. Goodwin, Chesterfield; Mr. F. G. Browne, (with enclosure;) Mr. Brew, Brighton, (with enclosure;) Dr. M'Cormac, Belfast; Dr. Tessier, Sunderland; Dr. Carrington, (with enclosure;) Mr. F. Nation, Biddulph; Mr. T. F. Edwards, Denbigh; Mr. Biddle, Catterick; Dr. Grant, Dundee; Dr. J. Adams; Dr. Cannift, Canada; Mr. Massen, (with enclosure;) Mr. J. Broadbent, South Collingham; Mr. Douglas, Southampton, (with enclosure;) Mr. Hetherington, Manchester, (with enclosure;) Mr. Garlike, (with enclosure;) Mr. Pollock; Mr. Hope, Epping, (with enclosure;) Dr. Williams, Norwich; Mr. Swallow; Dr. Bird, Shrewsbury; Mr. Beveridge, (with enclosure;) Mr. Savory, Cirencester, (with enclosure;) Dr. Ellis, Crowle; Mr. Manse, (with enclosure;) Mr. C. H. Taylor; Mr. J. Croft; Mr. Larkin, (with enclosure;) Mr. Campbell, King's Cliffe, (with enclosure;) Mr. Sell; Mr. Steele, Liverpool, (with enclosure;) Mr. Steward, Bath; Mr. J. Elliam, Nottingham, (with enclosure;) Mr. Chippendale; Mr. M. Bell; Mr. Roe, Bradford; Dr. Crisp; Mr. Anderson; Aërated Bread Company; Inquirer; Bon Accord; A Prince Edward Islander; A Regimental Surgeon, India; Ethnological Society; North Somerset; L.K.Q.C.P.I.; Peplicus; &c. &c.